***Ball State University's Department of Theater and Dance***
***Main Street Performing Arts Center***

**An Honors Thesis (IDES 484)**

**By**

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**Muncie, Indiana**

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**Expected Date of Graduation**

*May 2020*

**Abstract**

The Department of Theatre and Dance at Ball State University is seeking to expand their current facilities, which are inadequate and compromising the quality of shows they can perform and the students' learning experience. Additionally, studio spaces and workshops do not meet accreditation requirements per the National Association of Schools of Dance and the National Association of Schools of Theater standards. My research and designs offer a solution, by relocating the performance halls to Downtown Muncie, Indiana. With this relocation and renovation, the department will gain adequate production spaces that will allow them to produce shows at any level, without space restrictions or required modifications of the show. This solution also explains how this move could impact the surrounding community. In this regard, the design will strive to integrate the surrounding community's culture, the university's brand and the department's character to create a unique identity that can be promoted nationwide. The improved production spaces will allow the department to run more ambitious shows, giving the students and community a more diverse selection of shows. Additionally, a better facility will entice the community to attend more shows, increasing the department's revenue and fostering a community interest in the performing arts.

**Acknowledgments**

First and foremost, I must thank my thesis advisor, Dr. Sarah Alfaro. Without her assistance and dedicated involvement in every step throughout the process, this project would have never been accomplished. Her support and understanding over this past year have meant the world to me.

I would also like to show gratitude to my clients in the Department of Theater and Dance, including Mr. William Jenkins, Ms. Colleen Tovar and Ms. Christie Zimmerman. They raised many precious points in our discussions and were very patient with my knowledge gaps in their area of expertise. And a special thanks to Mr. Reza Ahmadi for introducing us to this project and facilitating our early meetings.

And of course, a big thank you to my teammates, Natalie Hopf and Megan Draper. We supported each other throughout this intense year, sharing invaluable advice and feedback. This project would not have gone as smoothly as it did without them.

Finally, I wish to acknowledge the support and great love of my family and friends. They kept me going and this work would not have been such high quality without them.

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**Process Analysis Statement**

I was one of three interior design students selected to work with the Department of Theater and Dance at Ball State University. They are seeking to expand their current facilities, which are inadequate and compromising the quality of shows they can perform and the students' learning experience. Through research and design, the three of us focused on different areas to give our clients a diverse selection of options. I chose to focus on the performance areas, creating a self-contained performing arts center for the entire department. Not only is this something the department desperately needs, but it is also a dream project for me. Since I was little, I have been lucky enough to attend many shows in beautiful theaters and my love of the building itself as only grown as I have learned enough about design to truly appreciate the technical details. Once I graduate, I hope to eventually specialize in the public and cultural sector – libraries, theaters, museums, etc. – so this project has been a great opportunity gain experience.

In addition to directly working with department leaders – Mr. Bill Jenkins, Department Chair and Ms. Colleen Tovar, Production Manager – we also worked with Mr. Jim Lowe, Associate Vice President of Facilities for Ball State University. But we had other users to consider as well, those who would be using the facility daily. The department itself consists of around 500 students and 70 faculty members. This creative and diverse group of people spend most of their time in the facilities, preparing and performing in their shows. If designed correctly, the facility could impact the general student population at Ball State University and other community members. While these constituents will not visit the facilities every day, such as the students and faculty will, the quality of the facilities will determine their interest in attending shows.

The current facilities have a whole host of problems. For one, the students feel their academics are being compromised due to the facilities restricting the quality of shows and learning experience. The department is spread across six different locations on campus, hindering the department's cohesive identity and not reflecting their high standards. Studio spaces and workshops do not meet accreditation requirements, per the National Accreditation Standards for Dance and Theater. Finally, poor acoustics between performance spaces prevents shows from occurring simultaneously, causing increased issues with department scheduling.

In order to solve these issues, my designs focused on increasing the current square footage of all studio and production spaces, creating more spaces where collaboration can occur. The improved production spaces will have larger support areas and follow all required guidelines. I will also focus on creating a connection to the surrounding community, integrating the culture and brand of the university to create a unique identity that can be marketed nationwide.

The Fall 2019 semester began with client interviews, discussing their department's issues and what they hope to see in the future. Next, I looked for precedents that could help me understand the history of theater design. These included: The Theater of Dionysus in Ancient Greece, The Globe Theater in Renaissance England, The Farnese Theater in Renaissance Italy and The Walnut Street Theater, the first theater in the United States. After looking into past design, I switched focus and researched current designs that were popular in the design industry. These included case studies such as: The Dance School of Aurelie-Dupont in France, The Lewis Arts Complex in New Jersey, The Australian Ballet in Australia and The Fine Arts Production Center in Boston. Similarly, I also did plenty of research in published literature such as: Factors that Influence Student Satisfaction, Designing Inclusive Restrooms, University Trends on a

Contemporary Campus, Five Trends in Performing Arts Center Design, Auditorium Acoustics and Auditorium Seating Design.

These articles coincide with the student and faculty survey responses we gathered. Both groups expressed interest in creating a more inviting space, with more square footage and more natural light. The faculty were also concerned about the amount of collaborative space. They mentioned adding an open space where people could relax or work in groups.

After all my research, I took what I had learned and applied it to the current theater and dance facilities. As a team, we also conducted observations of the department's current facilities. First, the Department Chair and Production Manager took us on a tour of their various facilities on campus. While on this tour, we took extensive notes and photographs which helped us better understand the issues the department was facing. Through behavioral mapping and observations of the department's four performance halls, common problems were discovered. Behavioral mapping involves sitting alone in a space, observing how everyone interacts with the each other and the built environment. Circulation patterns are examined, under or over used areas are noted, and the furniture layout is recorded. All the performance halls and their respective lobbies lacked identity and displayed poor wayfinding. Patrons were constantly asking for directions and many of the spaces could barely accommodate anyone with disabilities.

The lack of a common and exciting identity was one of the major problems I wanted to tackle. With that in mind, I developed a concept based on the kaleidoscope. Kaleidoscope is derived from the Ancient Greek work kalos "beautiful, beauty", eidos "that which is seen, form or shape" and skopeo "to look to, to examine". Thus kaleidoscope, an observation of beautiful forms. Kaleidoscope is also believed to symbolize the ability to see yourself in the bigger scope of life and connect to the meaning of it. The same could be said of theater and dance. Beautiful

forms and movement. Complex and simple connections to a bigger picture. The new Department of Theater and Dance Performing Arts Center will draw inspiration from aspects of a kaleidoscope. The movement and always evolving qualities of a kaleidoscope will be suggested by designing rooms that can flex in both size and function. The dynamic nature of a kaleidoscope will be represented within the space by ensuring every patron/student/faculty member is intrigued and surprised by the space. This will be done through the careful consideration for sightlines and the addition of beautiful art pieces throughout the site. Aesthetically, bright colors, geometric shapes and transparent materials will also be used to create an exciting atmosphere The transparent materials will also take advantage of natural light – light being an integral part of a kaleidoscope – and foster a deeper sense of connectivity for everyone.

Along with a concept description, I also created a diagram that could be used to directly influence my design. The concept diagram is created using nine lines to form three distinct shapes. There are nine degrees within the Department of Theater and Dance, hence the nine lines, and three overall programs, thus the three shapes. The first shape is a rectangle, which represents the production degrees since they are the building blocks of any show. Next, by turning the lines I created circles to represent the inherent movement in dance. Finally, those lines turned into triangles which represents the dynamic qualities of theater.

My scope of work evolved throughout the year. In the beginning, all three of us tried to tackle the entire department which included all their offices, classrooms, studios, production shops, storage, support areas and performance halls. However, after our final presentation to the clients at the end the Fall 2019 semester, it was decided that we each would focus on a different area. With my background interest in theater design, I chose to design a performing arts center located in downtown Muncie, Indiana. While this effectively halved my scope of work, it was

still just over 100,000 square feet that included all four performance halls, production shops for scenery and costumes, support areas for all the theaters and of course public and private lounge spaces.

Much like my scope of work, my site also changed at the end of the Fall 2019 semester. Originally, all three of us were tasked with redeveloping Northside Middle School, a site purchased by the University just north of campus. However, after that decisive meeting, I began to shift my focus to a possible off-campus site in downtown. This shift came after discussions with the Department Chair and Production Manager led us to consider how a performing arts center could provide the community with some much-needed foot traffic and give downtown more vibrancy. I selected a half-block site that included a historic structure on the north-west corner and other failing or empty businesses. Additionally, this site was surrounded by plenty of restaurants and transportation hubs, with the Muncie Civic Theater nearby – introducing a new performing arts center could begin to create an Entertainment or Arts District.

With a minor in Historic Preservation, I was excited to explore ways to preserve the existing historic structure, while also providing a modern, state-of-the-art facility. However, due to height requirements and the immense space needed for studios the interior of the building could not be reused. Similarly, because of the large footprint required for the theaters the other building on the site were also demolished. As a preservationist, I would have liked to see more restoration or rehabilitation of the existing structures, but due to project requirements this just was not possible. Fortunately, the façade is the most original aspect of the building and I was able to incorporate that into my overall design. Knowing an addition was required, I completed additional literature review on the contrasting opinion when considering different design styles for historic additions.

Sticking with the existing façade colors, I have designed an adaptive façade which features louvers that move with the sun. Not only does this mirror the movement found in a kaleidoscope and dance, but it will also ensure the proper amount of natural light is achieved inside. Behind the louvers is limestone to correlate with existing architecture on campus, and a large curtain wall.

*Starting below ground on Level 0* – the rehearsal spaces, the university theater dressing rooms and the orchestra pit are only accessible by the student/staff stairs and elevators. Since students will be spending a lot of hours on this floor, I also wanted to ensure they had plenty of lockers and lounge space. *Back on Level 1* – the student/staff stairs and elevator open to the back entrance, which again has plenty of seating and a kitchenette. From there, the students/staff can enter the box office, backstage or make their way to the front atrium. The public will enter through the main doors on the north façade, into a large four-story atrium. From here, they can enter the Korsgaard Dance Studio or the University Theater. Towards the back, patrons can find the box office, restrooms and elevator. The front atrium highlights the grand staircase that brings patrons to the third and fourth floors. The staircase is finished in white terrazzo with a glass railing covered in dichroic, iridescent film. The front atrium also includes light columns that are made from frosted resin panels with LED lighting behind. The idea is that these columns can be programmed for specific events or atmospheres. They could also be used to alert patrons that the show is about to begin or that intermission is ending by slowly flashing. On the right-hand column, there is a small built in that can be used as an information desk of concessions during a show. There is also three feature walls on this floor, two at the main theater entrances in front atrium and one at the back student/faculty entrance. The back-entrance feature wall highlights

the wide range of degrees and concentrations within the department. The wall, along with the dance studio entrance wall, feature long ribbon like designs made from resin material. On the University Theater entrance, the ribbons are exchanged for panels. Each wall also represents the three main programs from my concept diagram. The student/faculty entrance symbolizes production with a very linear and rectangular design, reflecting that the students and staff are the building blocks of the department. The dance studio entrance incorporates circular resin panels and the theater entrance focuses on the triangle. *Moving on to Level 2* – this floor is mostly taken up by double height production shops and the University Theater. One of the biggest questions I had was how to get the scenery from the second to the first floor. As a solution, I designed a large, open elevator where the scenery can be rolled through folding doors and lowered directly to the stage. *The next public floor is Level 3* – which houses the costume shop, public studio and central concessions stand. *Level 4 is the last public floor* – this were where the two black box studios are located, each surrounded by a hallway which allows the actors to easily navigate through the space during a show. *Finally, Level 5* – houses the light and sound shop, as well as the black box studio call booths.

Throughout the space, I incorporated illuminated signage on all the main areas – theaters, production shops, box office and restrooms. While this will work to get the patrons' attention, it was brought to my attention that I did not consider signage with braille. However, this is an easy fix by installing signage at the right height at all the entrances throughout the space.

It was brought to my attention during our final presentation that I should have focused more on ensuring all the plumbing locations were close, and I agree. While it was in the back of my mind while creating the floor plan, I was more focused on the theater locations. Security was also mentioned during one of my earlier reviews. My reviewer was concerned about the building

being open to the public – it is a very large building, with lot of expensive equipment and plenty of places to hide. At the time, I had a public café on the third floor, and this was his main concern. Since then, I have converted the café into a small concessions stand for the department and a public studio. While this would still require the public to access the building during the day, the instructor could monitor the doors before the class and ensure they are locked again once the class begins.

I believe I included plenty of opportunities for natural light in my design. In addition to the existing windows, I also created large curtain walls on the north façade, with adaptive louvers to let in the optimal amount of natural light. It was important to me that the production shops, dance studio and public lobbies had plenty of natural light. As for acoustic control, I will admit I could have done more. Most of the front atrium was finished with hard materials, and while I tried to incorporate an acoustic ceiling and uneven surfaces, it would probably still have acoustic issues.

The materials were selected to ensure enough diversity and interest without being overwhelming. This is something I struggled with towards the end of my project. It was important that the design use color, as my concept was the kaleidoscope, but I also had to ensure the space remained clean and professional looking. I thought by only applying color to art installations or feature walls, the rest of the space would act as a “blank slate”. However, the design began to look childish and distracting instead – the colors clashed and caused too much visual stimulus. My attempt to remedy this was by reselecting the color palette and choosing more refined, subdued colors. I believe this worked to a degree, but there might still be too many contrasting elements. Most of the floors are finished in either white terrazzo, or a combination of white and gray. Terrazzo is one of my favorite materials, as it provides a clean finish with plenty

of detail and can also be easily cleaned. All the walls are painted white, unless finished with one of the tiles of wallcoverings. These were selected to complement the color palette, and give the large, blank walls some interesting dimension. Acrylic panels were used throughout all three feature walls, because of the clean finish they can provide in variety of colors and their ability to glow when lit from behind.

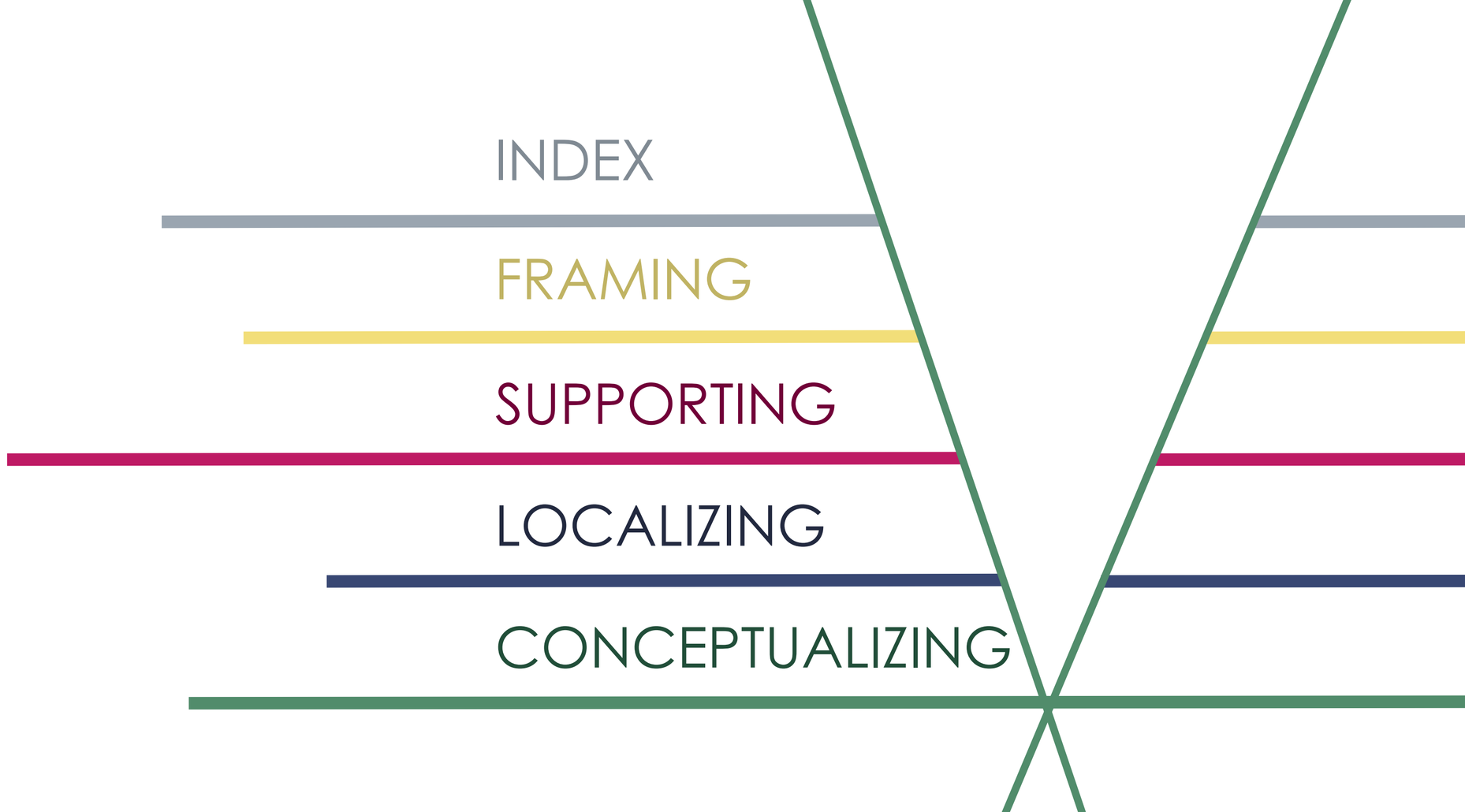
Most of the furniture was selected from Steelcase, because of the University's contractual obligation. However, I wanted to provide the students, staff and patrons with plenty of different seating options. In the lounge spaces particularly, I focused on creating spaces for individuals and spaces for groups. In addition, I know the theater and dance students are a very creative and diverse group of people, so the furniture layout is flexible, allowing them to change the space to fit that day's mood. I also did not want the space to feel institutional, so many of the pieces draw on hospitality design more than the education sector.

Overall, I believe this new facility will encourage more prospective students to consider Ball State University, therefore growing the department and providing a larger pool of applicants to choose from. It will also allow the department to run more ambitious shows, giving the students and community a more diverse selection. A beautiful new facility will entice the community and bring an increased cultural and art awareness to a demographic that otherwise would not experience it.

Creative Project, Programming Document and Research

# Ball State University's Department of Theater and Dance

Main Street Performing Arts Center
Emily Schripsema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# FRAMING

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BACKGROUND

CLIENTS + CONSTITUENTS

# GOALS, PROBLEMS +SOLUTIONS

Create a facility that meets all accreditation requirements, while also improving the functionality and identity of the department.

Provide adequate production spaces that will allow the department to produce shows at any level, without space restrictions or required modifications of the show.

Integrate the new facility with the surrounding community and nearby campus through improved functionality, appearance and offerings of the space.

## PROJECT GOALS

## PROBLEMS

The students feel their academics are being compromised due to the facilities restricting the quality of shows and learning experience.

Storage units are currently spread across five different locations, hindering the transportation of large sets.

Studio spaces and workshops do not meet accreditation requirements per the NASD and NAST standards.

Poor acoustics between performance spaces prevents shows from occurring simultaneously, causing increased issues with scheduling.

## SOLUTIONS

Increase the current square footage of all studio and production spaces, creating more spaces where collaboration can occur and possibly seat the entire department.

Improve production spaces through increased overall square footage for all support areas and ensuring they meet all required guidelines.

## PROBLEMS

The current facilities do not reflect the department's identity, high profile nationwide and standards.

## SOLUTIONS

Integrate the surrounding community's culture, the university's brand and the department's character to create a unique identity that can be marketed nationwide.

# PROBLEM + SOLUTION STATEMENTS

Better facilities will encourage more prospective students to consider Ball State University, growing the department and providing a larger pool of applicants to choose from.

Improved production spaces will allow the department to run more ambitious shows, giving the students and community a more diverse selection of shows.

A better facility will entice the community to attend more shows, increasing the department's revenue and providing the community with increased cultural/art awareness .

A stronger connection to the community will foster an increased interest in the performing arts, bringing art and culture to a demographic that otherwise wouldn't experience it.

## PROJECT OUTCOMES

***The Department of Theatre and Dance*** at Ball State University is seeking to expand their current facilities, relocating their performance halls to downtown Muncie. The students feel their ***academics are being compromised due to the current facilities*** restricting the quality of shows and their learning experience. Additionally, ***studio spaces and workshops do not meet accreditation requirements*** per the National Association of Schools of Dance and the National Association of Schools of Theater standards. With this relocation and renovation, the department will gain adequate production spaces that will allow the them to produce shows at any level, without space restrictions or required modifications of the show. The design will focus on ***improving production spaces*** through increased overall square footage for all support areas and ensuring they meet all required guidelines. It will also strive to integrate the surrounding community's culture, the university's brand and the department's character to ***create a unique identity that can be promoted nationwide***. The improved production spaces will **allow the department to run more ambitious shows**, giving the students and community a more diverse selection of shows. Additionally, a better facility will entice the community to attend more shows, increasing the department's revenue and ***fostering a community interest in the performing arts***.

## DESIGN STATEMENT

# BACKGROUND

## NORTHSIDE SCHOOL

Northside became Muncie's third high school in 1970 but was converted to a middle school shortly after in 1988. The facility originally only containing seventh and eighth grade students, but in 1995 sixth grade was added. As a result, elementary teachers were brought into the facility, creating a diverse staff.

There are presently eight teams of 4-5 teachers that offer core classes in language arts, math, English, social studies and science. Other classes such as physical education, art, music, food and consumer sciences, foreign languages and computers are also available to the students. Northside also offers a variety of extra-curricular activities including: team sports, academic teams, intramural sports, computer club, cheer, drama and music.

Being only one of two middle schools int he Muncie community, Northside houses over 1000 students with a racial distribution of 72% Caucasian, 24% African-American and 4% other. (About Us, 2019)

## CLASSROOM DESIGN

A study in 2012 found that the design of a classroom could enhance or set back a student's progress by 25% over the course of one year.

1870 - Due to new labor laws, schools saw an increase in enrollment. Layouts maximize floor space with instructors lecturing from the front and students sitting at fixed desks many rows deep.

1954 - Public schools in the U.S. begin desegregation, but that isn't the only change. The traditional row/column layouts are replaced with open-education classrooms, free of walls and individual classrooms.

1998 - The U.S. Green Building Council launches LEED

Present Day - Modern classrooms integrate flexible spaces and evolving technology into energy efficient and crime deterring design. (Brite, 2014)

## THEATER DESIGN

An exclusively Greek contribution to architectural history is the auditorium for watching theatrical performances.

500 BCE - A stone auditorium is built on the site, in the shape of a semi-circle. The stage is a full circle, with a stone base in the center on which an alter stood. The rising tiers of seats, separated by aisles, provides the pattern for all theaters to come.

1300's - Elizabethan timber-framed, open-air theaters often took their form as multi-sided buildings with a covered platform stage against one side. The audience stood in the courtyard ot sat in the galleries.

1800's - With the intention to bring respectability to theater-going the classes were segregated - financially by the cost of the tickets and physically by the separate entrances.
(Gascoinge, 2001) (Grundy, n.d.)

## DEPARTMENT INFO.

Ball State University's Department of Theater and Dance offers nine diverse degree options. They are fully accredited by the National Association of Schools of Theatre and the National Association of Schools of Dance.

They offer BFA degrees in: acting, dance, design and technology and musical theatre. Additionally, they offer BA/BS degrees in: dance, design and technology, directing and stage management, theatre education and theatrical studies.

The department is guided by 7 Core Values which reflect the student's journey and fosters compassionate, inclusive and empathetic human beings. (Who we are, n.d.)

Character
Empowerment
Inclusivity
Innovation
Collaboration
Professionalism
Critical Thinking

**Mr. Bill Jenkins**
Department Chair

**Mr. Jim Lowe**
Associate VP of Facilities

## Theatre and Dance Students

A creative and diverse group of students, these constituents spend a majority of their in the Theater and Dance facilities preparing for their shows. The space needs to be comfortable and enjoyable, while also increasing efficiency.

## Theatre and Dance Faculty

- Acting + Musical Theatre (27)
- Dance Instructors (15)
- Design Technology (10)
- Directing, Stage Mgmt., Theatre Education + Theatrical Studies (14)
- Other Faculty (5)

## General Student Population

While these constituents will not visit the facilities every day, such as the students and faculty will, the quality of the facilities will determine their interest in attending shows.

If designed correctly, the facility could also offer the community additional services - food, drink, welcome center. The needs and desires of the community will determine what additional commercial entities are added.

## Community Members

# CLIENTS + CONSTITUENTS

# SUPPORTING

PROJECT SCHEDULE

PRECEDENT +CASE STUDIES

LITERATURE REVIEW

INTERVIEWS + SURVEYS

OBSERVATIONS

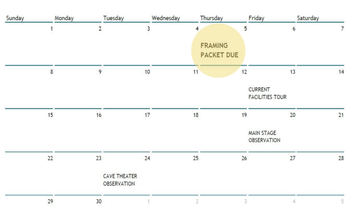
DEFINITIONS

CODES + REGULATIONS

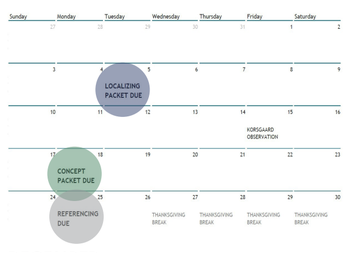
# PROJECT SCHEDULE

| | |
|---|---|
| **01 - FRAMING** | **SEPTEMBER 4TH** |
| PROBLEMS + SOLUTIONS + OUTCOMES + GOALS | 7.0 |
| CLIENTS + STAKEHOLDERS + CONSTITUENTS | 7.5 |
| **02 - SUPPORTING** | **OCTOBER 9TH** |
| PROJECT SCHEDULE | 3.0 |
| PRECEDENT STUDIES | 10.5 |
| LITERATURE REVIEW | 15.0 |
| INTERVIEWS + SURVEYS | 12.0 |
| OBSERVATIONS + BEHAVIORAL MAPPING | 27.0 |
| DEFINITIONS | 1.0 |
| CODES + REGULATIONS | 17.5 |
| MOOD BOARD + BRAND STRATEGY | 10.0 |
| **03 - LOCALIZING** | **NOVEMBER 4TH** |
| ON-SITE DOCUMENTATION | 3.0 |
| MACRO + MICRO PROGRAMMING | 5.0 |
| ADJACENCY DIAGRAM | 4.5 |
| PROTOTYPICAL SKETCHES | 3.0 |
| BUBBLE/BLOCK DIAGRAMS | 20.0 |
| **04 - CONCEPTUALIZING** | **NOVEMBER 18TH** |
| CONCEPTUAL ANALYSIS | 13.0 |
| **05 - REFERENCING** | **NOVEMBER 25TH** |
| APA + FOOTNOTING | 8.0 |
| **VERBAL PRESENTATION** | **DECEMBER 2ND** |
| **PRINTED PACKET** | **DECEMBER 11TH** |

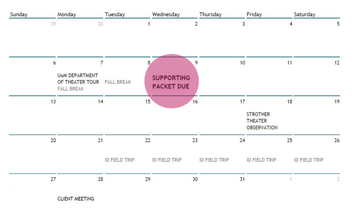
## SEPTEMBER



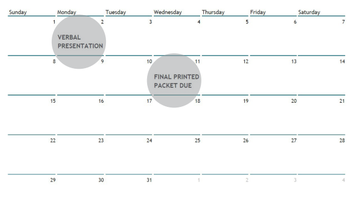

## NOVEMBER




## OCTOBER



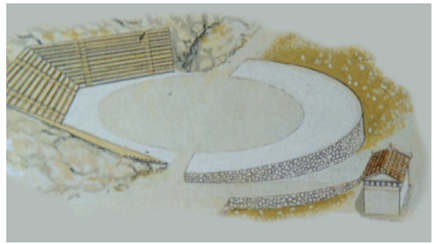

## DECEMBER

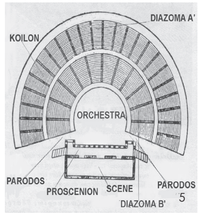


# PRECEDENTS

The Theatre of Dionysus in Athens, Greece is said to be the birthplace of Greek drama. Originally built in the *6th-century BCE*, the theatre was a portion of a larger area used for religious ceremonies dedicated to Dionysus.

Built into the south side of the Acropolis, the hillside was used for seating people watching the ceremonies taking place on the cleared area at the bottom. These ceremonies included singing, drinking, animal sacrifices and mask-wearing to tell the story of Dionysus. During the spring celebration, many plays were written to be performed in the competition of plays. The space eventually became a traditional theatre, with the cavea, or tiered semicircular seating area primarily made of wood. These rows of seats were created against the hillside, with stairs allowing access to the rows farther away from the stage.





About a century later, the cavea was expanded by adding rows of seating and replacing the wooden structures with ones of stone. Large gateways were built on each side of the stage, and a skene was constructed at the back of the stage. During this grand remodeling, more rows of seats were added and extra horizontal walkways were built to allow easier access to seating. Carved marble seats in the front row were reserved for officers, including one large throne in the center reserved for the priest of Dionysus.

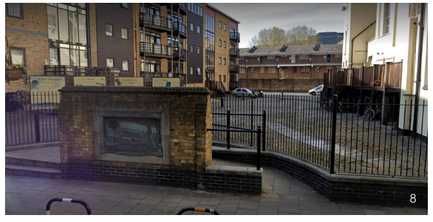
Around 61 CE, a new stage was built with a floor of marble dedicated to the Roman emperor Nero. A grander skene was constructed and Roman architectural features were added.

Greek theaters excelled in two things - sight lines and acoustics. Seats were arranged in tiers, so that people in the lower levels would not obscured the stage from those above. The tiers followed the shape of the stage, if it was rectangular the seats facing the front would be rectilinear as well with curves to the side. This seating arrangement only increased the acoustic qualities. Those in the back row have long be able to hear the actors unamplified.

This highlights the importance of acoustics and how it can be affected by seating. The new facilities and performance halls will also take into account the relationship between stage height and seating.

## PRECEDENT STUDIES - THE THEATRE OF DIONYSUS

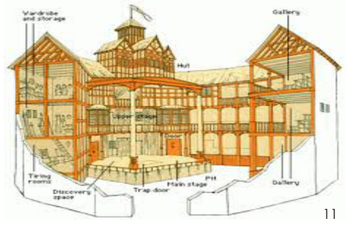
(Chao, 2007) (Gill, 2019) (Jackson, n.d.)



Until 1989, the location for the original Globe theatre was unknown until remnants of its foundations were discovered beneath the parking lot of Anchor Terrace, an apartment complex. However, since Anchor Terrace itself is listed as a historic monument, the location can not be disturbed by archaeologist.

In Shakespeare's time, a stage wasn't just one type of space, it had to be versatile. Plays might be produced in an outdoor playhouse, an indoor theater, a royal palace or a courtyard inn. The Globe Theatre was designed to make the performance easier for the actors. The stage featured multiple trap doors - one for entering from below and one for entering from above. The back wall of the stage had two or three doors on the main level, which entered into the backstage area. Here the actors could get dressed and await their entrance, all hidden from the audience. Research also shows proof of hidden passages underneath the stage.

The Globe was built in *1599* using timber form an earlier theatre, which they dismantled beam by beam. Unfortunately, in 1613 the Globe Theatre went up in flames during a performance, when a theatrical cannon misfired. After being rebuilt, it was closed down in 1642 by the Puritans during the English Civil War and eventually destroyed two years later to make room for tenements. In 1997, a replica was opened under the name "Shakespeare's Globe Theatre".




The new facilities will draw inspiration from the versatility of the performance spaces of this era. Hidden corridors will also be considered to aide circulation.

At the base of the stage, there was an area called the pit, or yard, where people would stand to watch the performance. Around the yard, were three levels of seating that were for more wealthy patrons.

A stage measured around 43 feet in width and 27 feet in depth, and was raised about 5 feet off the ground. Large columns supported a roof near he rear of the stage, which was called the "heavens" and may have been painted with clouds. A trap door in the "heavens" enabled performers to descend using some form of rope. There was also a trap door on stage, for performers to enter from the "cellarage" area beneath the stage. Doors on the back wall entered into the "tiring house" where he actors dressed and awaited their entrances.

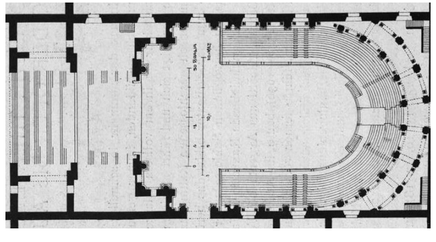
## PRECEDENT STUDIES - THE GLOBE THEATRE

(Lopez-Morillas & Kraft, n.d.) (Shakespeare's theater, n.d.)

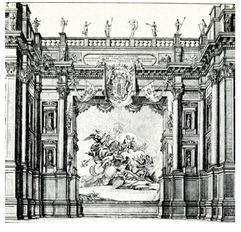
In *1617*, the Duke of Parma commissioned architect Giovanni Battista Aleotti to create a grand theatre inside the Palazzo della Pilotta. The theatre was designed for tournament operas, a mix of opera and fighting and became a model for Baroque theatre due to its size and permanent proscenium.

The monumental proscenium divides the stage, and for the first time provides the spectators with a frame through which they could observe the performance. This embodied the most up-to-date features of Italian theatre design. The stage itself is set back in a monumental composition of Corinthian columns, with niches holding allegorical statues and the Farnese coat of arms.

This theatre was also equipped with the first movable scenery in theatre history. This was intended from the beginning, a mark of modernity in 1617, and the stage is deep enough to accommodate nine or ten rows of sliding flats.



Due to the fact that an existing space was retrofitted to become a theatre, the theatre plan of a long rectangle was not a choice on the part of the architect. However, Aleotti utilized this extra length by making the auditorium a deep U-shape. The space between the seating and stage was not occupied - as a modern orchestra pit would be - but instead was used for dance, royal processions and could even be flooded with water for sea battles.



An auditorium of almost stadium standards was consequently formed, with fourteen rows of seats that could hold 3,000 spectators. Behind the seats rises a two-story arcade, the two sides are merely trompe l'oeil but a genuine arcade can be found at the back of the room. This gives a strong sense of architectural unity to the whole design. The theatre was only used nine times over the 104 years it was occupied.

The early history of the Farnese Theatre shows how versatile the space can be. The open space between the stage and seating could be used for many things, allowing the space to be used for more than just plays - dances, sea battles and equestrian scenes. This versatility could be utilized today by increasing the possible functions and programming, allowing the space to be used even without a show.

## PRECEDENT STUDIES - THE FARNESE THEATRE

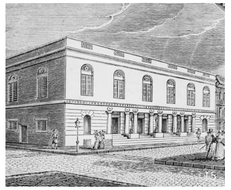
(Tidworth, n.d.) (King, 2014) (The Editors, 2010) (The Editors, 2008)

# CASE STUDIES

## PRECEDENT STUDIES - THE WALNUT STREET THEATRE

(History of the theatre, n.d.) (Theatre timeline, n.d.)

1809



In *1809*, the first theatre in the Americas opened under the name "The New Circus", where amazing equestrian acts were preformed. The theatre was renamed "The Olympic" after a stage and pit for theatrical performances was added in 1811. Major renovations of the interior and exterior occurred in 1828, and the name was changed to "The Walnut Street Theatre". The facade that can be seen today is based upon the 1828 design by architect John Haviland.

In 1837, The Walnut became the first theatre to install gas footlights, which acted as a row of spotlights along the front of the stage at the level of the actors' feet. The 1880's were a big year for renovations, including a new stage that could handle more elaborate musical comedies. By the 1890's, the gas footlights were replaced with electric and chandeliers were added to the space.

1900

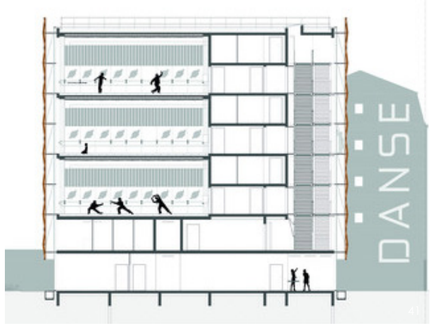
1952

1969

The interior was rebuilt in 1920 within the old exterior using structural steel (see below left). However, in 1969 a multi-million dollar "Grand Restoration" began but with limited information on the original nineteenth-century interior the decision was made to modernize the theatre (see below right). Though the lobbies and auditorium were completely modernized, the historic stage and its rigging were left virtually untouched. To this day, it continues to operate the original grid, rope, pulley and sandbag system that was in use nearly two centuries ago, making it one of only a few remaining "hemp houses" in the country.

2022 - Proposed Addition

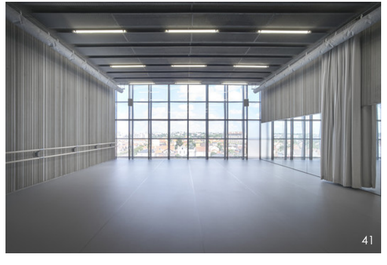
The new facilities will take into consideration the relationship between the existing historic structure and any proposed modern renovations. Along the same lines, care will be taken to not erase all historic character.

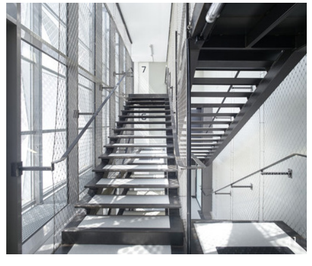



Set back from the boundary of the site, the project breaks the street frontage built along the avenue to create a public courtyard. The narrow and deep site is wedged between a 4-story apartment building and a small supermarket. It is inserted as an unusual object, arousing curiosity of the passerby.

The aim of the simple geometry was to free as much space as possible to accommodate large and generous dance studios. By strictly dividing the program between circulation on the avenue side and the function spaces on the interior, the school optimizes the flow of circulation and solar orientations. Therefore, dance studios benefit from an optimal natural lighting from the north, while the circulation paths receive southern light that projects long shadows.

Minimalist interiors and raw materials contrasts with the precision of the outer shell of the building. Consisting of a perforated metal veil forming a regular diamond pattern, the envelope is designed to filter sunlight without altering the view.





## DANCE SCHOOL AURELIE-DUPONT - FRANCE

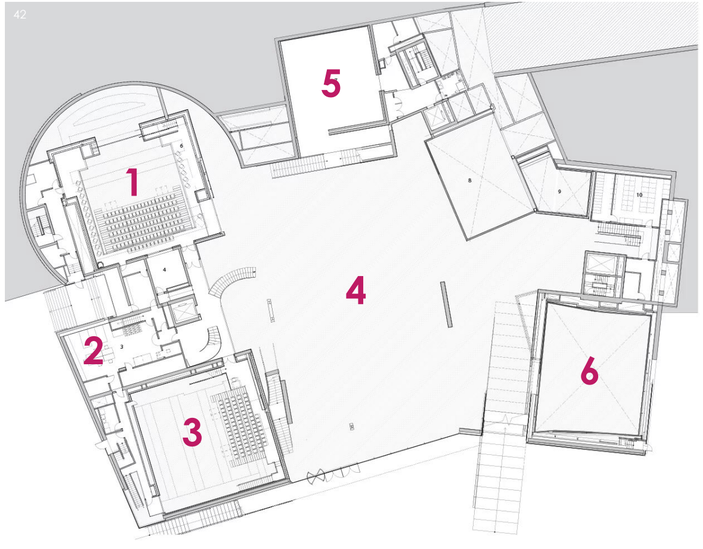
(Lankry Architectes, 2015)

The new Lewis Arts Complex takes the arts at Princeton University to even greater heights by significantly expanding the performance, rehearsal and teaching spaces. The complex creates a new campus gateway, shaping campus space while maximizing porosity and movement.

The complex consists of three buildings, all integrated below ground in the Forum, an 8,000 square-foot open gathering space. Above the Forum is an outdoor plaza with a reflecting pool. Within the reflecting poor, skylights filter natural light into the Forum below.

Encouraging curiosity and interaction, views into the dance and theater practice spaces act as an open public invitation. The new plaza space aims to connect the local community to the University and the arts.

The black-box theatre is composed of steel, while the dance studios are aluminum and white washed wood. A “dancing stair” connects all levels.




**1.** Black Box
**2.** Costume Shop
**3.** Dance Studio
**4.** The Forum
**5.** Gallery
**6.** Rehearsal

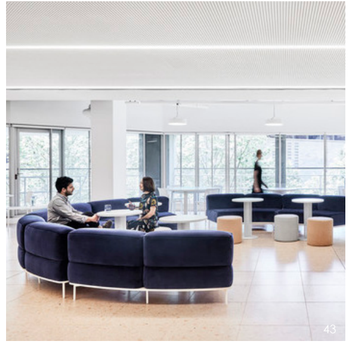
## LEWIS ARTS COMPLEX - PRINCETON, NEW JERSEY

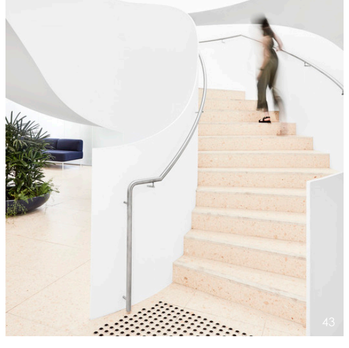
(Steven Holl Architects, 2017)

The 13 million dollar refurbishment of the Australian Ballet facilities expands the facilities to aerate at the same level as their performances. The project has many different types of spaces ranging from workplace, public cafe, specialist medical facilities, changing room, common room and a large dance studio designed to fit the stage where the company regularly performs.

The color pallet is constant throughout - light and minimal allowing the seasonal changing colors and personality of the company to shine through. The pallet is strongly influenced by the silk of the ballet shoe, and is occasionally complemented with a dramatic deep navy blue. The interior architecture plays on the concept of stage and performance, a layering effect of frosted glass and sight lines allows glimpses into the "backstage" while still keeping the mystery alive. A centralized stair connects the two levels, just wide enough for two tutu's to pass each other.

The clever use of materials forms a balance between delicate and strength, a metaphor for the dedication and prowess of the company.





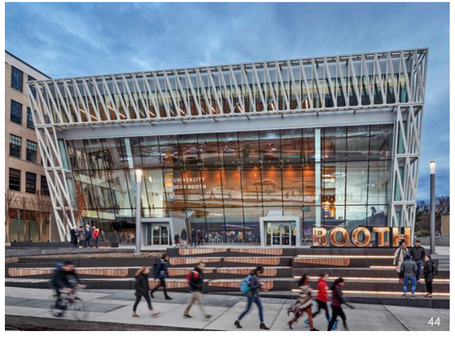
1. Reception
2. Workplace
3. Workplace Hub
4. Dance Studio Viewing Airlock
5. Main Dance Studio

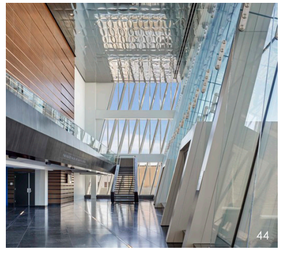
1. Entrance
2. Public Cafe
3. Physiotherapy
4. Recovery Room
5. Dancers Common Room
6. Principal Male Dancers
7. Male Dancers
8. Female Dancers
9. Principal Female Dancers

## THE AUSTRALIAN BALLET - MELBOURNE, AUSTRALIA

(Hassel, 2018)

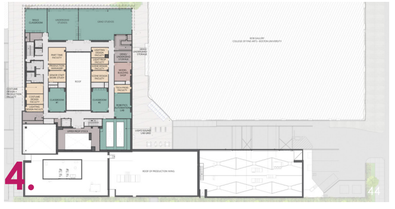
Wrapped in a proscenium-like concrete scrim, the theater's shimmering 40-foot glass facade on Commonwealth Avenue tilts toward the street at a 14-degree angle, reaching out and inviting visitors in, while reflecting them back as well.

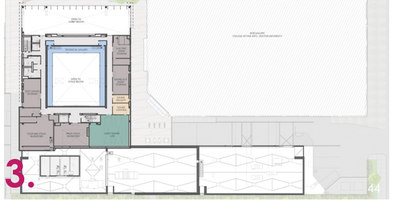


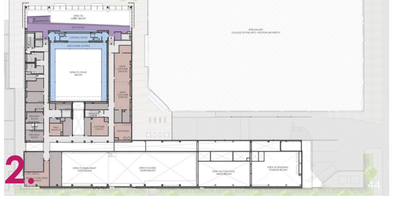



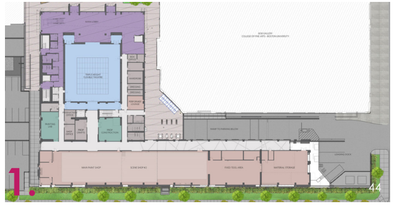
The new facilities enable Boston University's College of Fine Arts School of Theatre to become a more unified and comprehensive program, with state-of-the-art facilities as teaching tools for all aspects of theatre production and performance. It is the first time in decades that the College of Fine Arts performance and production students have been housed in the same location.

A well-known quote from Shakespeare's Hamlet: "To hold as 'twere the mirror up to nature" has been a longtime touchstone for the Boston University theatre program and became a central point of inspiration for the design idea of theatre as a mirror to society. The inspirational quote is now engraved on black metal panels along the edge of the mezzanine above the entry lobby, greeting all students, faculty, and visitors and reminding them of the world of imagination they are entering.




## FINE ARTS PRODUCTION CENTER - BOSTON UNIVERSITY

(Elkus Manfredi Architects, 2018)

Two new amendments to the International Plumbing Code create a path for gender-neutral restrooms in both single and multi-user configurations.

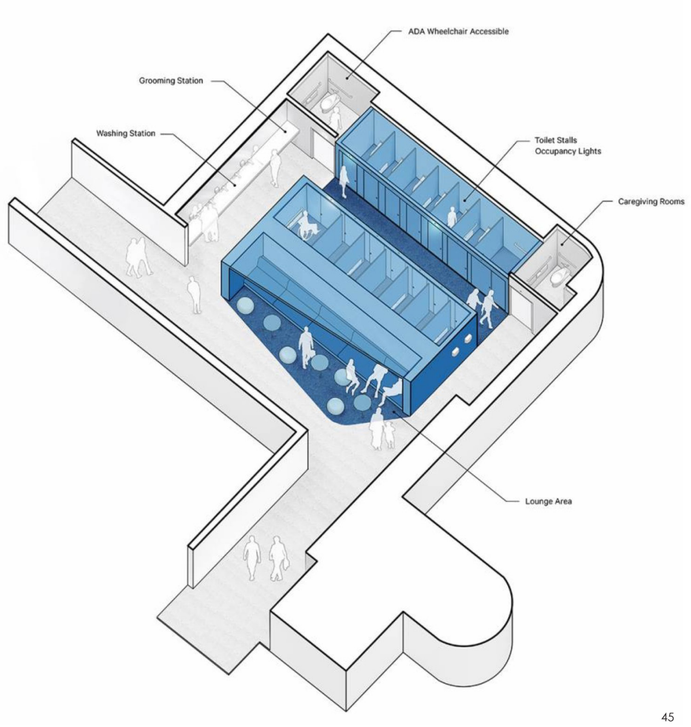
Single-user Restrooms require signage to indicate that they're open to any user
Multi-user Restrooms can now be offered to all users. They must have shared sinks, and each toilet must be a private compartment.

## MAIN BENEFITS:

Public Safety Issues - trans-gender people often face harassment in sex-segregated restrooms.

Accommodation for People with Special Needs - Families with small children who are too young to use restrooms by themselves often face a difficult decision when it comes to using sex-segregated public restrooms. This becomes increasingly awkward as children reach toddler-hood and early childhood and become aware of other restroom patrons. Adults who have caregivers frequently face a similar problem. Inclusive restrooms are crucial for anyone who's taking care of an elderly parent or assisting a person with a disability.

Decreased Waiting - Have you ever waited anxiously in line to use the bathroom while the opposite-gender restroom sat empty? Allowing anyone to use an all-gender restroom cuts down on the waiting time disparity.

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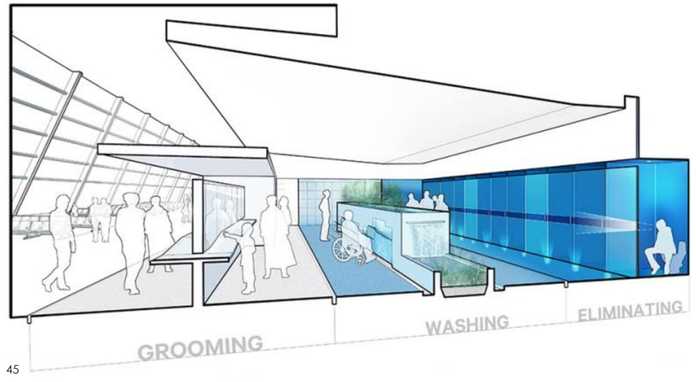


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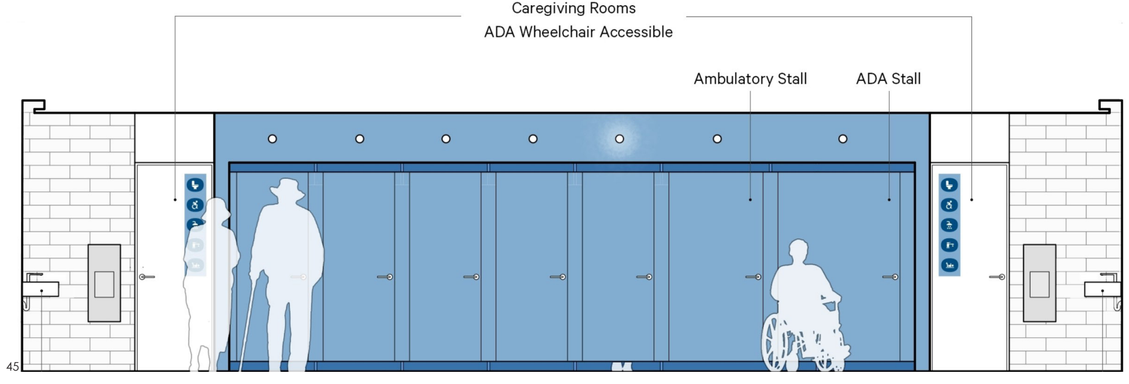
New buildings naturally have the most flexible options, where you can create a space that balances visual privacy with the need for an accessible, open space.

Some design strategies include:
Fully enclosed stalls in a mix of three sizes (standard, ambulatory and ADA-compliant)

Rooms or alcoves for private needs like care-giving, insulin injections or breastfeeding

Separate zones for grooming, washing and eliminating to facilitate quick and easy restroom access

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# DESIGNING INCLUSIVE RESTROOMS

(Penny, 2019)

# LITERATURE

The purpose of this study was to identify personality types between different university disciplines, and to establish whether there are differing requirements in the design of physical learning environments. Also, to identify features of the physical learning environment that can support a sense of community.

Little is understood about people's interactions with the physical learning environment, however, it is suggested that there are three fundamental ideas: (1) All learning takes place in a physical environment with quantifiable and perceptible physical characteristics. (2) Students do not touch, see or hear passively; they look, feel and listen actively. (3) The physical characteristics of learning environments can affect students emotionally.

Data was collected to determine the factors of the physical learning environment that students rate most important. The data was split into three university disciplines to compare the factors and personality type.

Table 1- Descriptive statistics- Art & design, Built Environment and Engineering

| | Art and design | Built Environment | Engineering |
|---|---|---|---|
| | Mean | Mean | Mean |
| Formal learning spaces | 3.64 | 3.92 | 3.73 |
| Informal learning spaces | 4.15 | 3.71 | 3.94 |
| Lecture halls | 3.58 | 4.06 | 3.94 |
| Specialist teaching rooms (e.g. labs) | 4.15 | 4.10 | 4.48 |
| Access to libraries | 4.54 | 4.35 | 4.36 |
| Access suitable and clean toilets | 4.75 | 4.48 | 4.58 |
| Open social areas | 3.98 | 3.77 | 3.55 |
| Private social areas | 3.58 | 3.56 | 3.58 |
| Access to refreshments | 4.32 | 4.00 | 4.24 |
| Spaciousness to avoid overcrowding | 4.59 | 4.21 | 4.33 |
| Room layout allowing for easy visibility of teacher | 4.15 | 4.15 | 4.42 |
| Layout of room allowing for both group and independent learning | 4.32 | 3.85 | 3.85 |
| Ability to adjust furniture to meet your needs | 4.34 | 3.35 | 3.67 |
| Clear signs in buildings | 4.17 | 4.06 | 3.91 |
| Colour and textures of flooring furniture and surface finishes | 3.41 | 3.04 | 2.73 |
| Motivating environment e.g. Bright colours | 3.47 | 3.21 | 2.97 |
| Creating a natural environment e.g. Plants, plenty of windows | 4.07 | 3.73 | 3.48 |
| Comfortable furniture | 4.25 | 4.10 | 4.30 |
| View out of windows | 4.14 | 3.27 | 3.24 |
| Up to date technology | 4.69 | 4.33 | 4.85 |
| Access to technology (e.g. plugs, computers etc.) | 4.73 | 4.42 | 4.85 |
| Control of environmental factors e.g. Noise, lighting | 4.34 | 4.06 | 4.09 |
| Comfortable temperature | 4.46 | 4.27 | 4.39 |
| Natural lighting | 4.56 | 4.19 | 4.06 |

The data showed that each discipline shared six factors in what they ranked as their top ten most important physical environment factors that effect their learning - access to libraries, access to suitable clean toilets, spaciousness to avoid overcrowding, up to date technology, comfortable temperature and access to technology.

Those in Art and Design also rated the ability for the room layout to allow for both group and independent learning, the ability to adjust furniture and the ability to control of the environment as important factors of their learning.

## FACTORS THAT INFLUENCE STUDENTS' SATISFACTION

(Wilson & Cotgrave, 2016)

A university campus has a special dynamic: echoing centuries of scholarly tradition, interacting with cutting-edge technology and energy. Today, universities are also facing pressure from financial budgets, rising tuition fees and rapid technology progress.

How are universities' adapting the campuses to accommodate these challenges?

## Adaptive Reuse

A new trend has been rapidly gaining attention for a while now - adaptive reuse. This refers to when old buildings, or any buildings not used for the desired purpose, are converted to better suit modern needs. It offers many great possibilities, both economically, environmentally and artistically.

The demolition and reconstruction of existing buildings rank among the most extreme uses of natural resources, accounting for 40% of the total flow of raw materials globally. Not to mention the environmental impact demolition has in terms of landfills. Adaptive reuse can provide an efficient means of meeting new spatial requirements at a small environment cost. Financial costs may also be reduced, as adaptive reuse is typically less expensive than new construction. By reclaiming a building that has become obsolete, universities can invite innovative architectural solutions to deliver character-rich places that can build institutional brand and be environmentally responsible.

## Innovation: Entrepreneurship

Today, prospective students are looking for innovation hubs at the center of campus. Increasingly, employee feedback leans towards dissatisfaction with the graduates' preparation for the workplace, while the ambitions of the students' themselves are shifting. Many plan to use their time at university to develop and realize new ideas, inspired by high-profile entrepreneurs who never completed a degree. One approach that is common among universities is focusing on creating deeper relationships with commercial entities and the public. These relationships may lead to mentorships for the students, a clearer understanding of the workforce, or even possible joint ventures with corporate partners. The underlying essence of this culture is forward-thinking, inventive and adaptable.

# UNIVERSITY TRENDS: CONTEMPORARY CAMPUS

(Coulson, Roberts & Taylor, 2018)

The National Endowment for the Arts has released studies based on surveys carried out in 2012 stating that performing arts attendance has steadily declined over the past two decades. Audiences have changed, contemporary entertainment attracts a new generation with higher expectations. Now, decision makers are re-imagining the built environment in order to stay relevant today.

## Make a Night + Day of It With Better Food + Drink Offerings

Audiences are now placing a priority on the integration of high quality food, drink and dining experience. This movement is being supported with the inclusion of spaces specifically designed for these offerings - pre + post show dining, bistros, customized menus, etc. Adding food service could also open the doors to new opportunities for daytime patronage. This trend impacts the audience chamber as well, since patrons expect to bring their drinks or food into the performance. This could lead to an increase in easily-cleaned upholstery or even cup-holders inside.

## Create a More Social Experience

Audiences now have the freedom to move about, dance and socialize before, during and after the performance. One simple way to foster this dynamic environment is by adding social-friendly seating, with room for food and beverages. This could be extended into lounge-type areas on the outskirts of the lobby, were patrons can relax in semi-privacy.

## Consider Convertible Audience Floors for More Flexibility

In order to host more shows, many venues are incorporating convertible audience floor systems. Whether is calls for theater-style seating or flat floor cabaret-style seating, the system neatly tucks rows of theater seats into a storage space below the surface.

## Light + Video Animation onto Architecture

To facilitate an immersive and visually stimulating experience, performing arts centers are using technology to place animation and light onto the interior and exterior surfaces. For example, the The New World Center projects video art, films and live broadcasts of events happening inside the hall onto an exterior wall that audiences can enjoy for free.

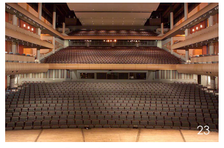
## Audience Immersion

Shows are rapidly becoming multi-sensory, multi-directional, surround experiences. Patrons are being placed inside the show through the use of video, sound, special effects, scenery and positioning of actors. This immersion could involve all five senses - touch, sight, sound, smell and even taste.

# FIVE TRENDS IN PREFORMING ARTS CENTER DESIGN

(Hagler & White, 2015)

## Public Accommodations: The Auditorium



Arena Seating

In the past, the auditorium was split depending on your status and wealth which provided you with special seating. In order to stop this divide, and prevent obstructed sight lines created by the balcony supports, the arena-plan was developed. However, the balcony system had the advantage of having all the audience close to the stage. In large theaters, the distances became vastly increased and even the best acoustic conditions could not ensure a quality experience to those in the back. Despite this, the arena-theater is regarded as the genuine people's theater.

## Public Accommodations: The Foyer

Balcony Seating

The foyer, or lobby, of a theater is just as important as the auditorium. It has been demonstrated that a large, but not too vast, foyer proves to be the best. If people have limited space and their movements are restricted, groups will stop circulating and conservation dies. On the other hand, is the space is too large people can not find each other and conversations never start. It is essential for plays to be discussed, and the foyer provides that space.

## Back of House: Stage Offices + Dressing Rooms

Dressing Rooms

People like to forget that the prerequisite for artistic creating and producing something good, is to have suitable working conditions. Three major elements have to be conveniently located to the stage - the dressing room, kitchenette and workshops. The dressing rooms, administrative offices and kitchenette should all flank the stage. The workshop areas must be as close as possible to the stage, but should not disturb the noise level during shows.

# THE MODERN THEATER: ARCHITECTURE

(Schubert, 1971)

## Doors

All doors should be solid-core, with airtight seals to stop outside noise from slipping in and a STC rating in the 35-40 range. If double doors are used, ensure that an Astragal is installed in the center, and sufficient rubber gasketing is used to prevent flanking

## Combat Reverberations

Build with sound absorbing material and include sunken panels, undulations and other small irregularities in the walls. Consider specialty treatments, such as stretched fabric wall systems, custom-designed and installed for auditorium spaces. Sound reflecting materials should be used for the bulk of the building process (thick wood, thick gypsum, concrete). Hang thick, fabric curtains along walls to minimize hard surfaces. All aisles should be carpeted to reduce foot-traffic noise. Always use fabric seating. Avoid metal and plastic. Create a checkerboard pattern alternating between sound reflecting and sound absorbing materials along the ceiling.

## Location

For new auditoriums, the building should be planned as far away as possible from any potential noise sources such as highways, train tracks, industrial areas or airports.

## Buffer Zones

Isolate the auditorium from the rest of the building and potential noise sources by creating buffer zones. Hallways and lobbies should separate the main auditorium from restrooms, mechanical equipment, dressing rooms etc.

## Background Noise

Install sound absorbing duct liners and mufflers to reduce HVAC noise. HVAC design shall ensure that the Noise Criteria level is at or below NC-35.

## Balconies

Balconies should be included where possible to reduce the distance between the farthest seats and the stage. The overhang should be of small depth and be fitted with sound absorbing material

## Sound Systems

Speakers should be placed just above and in front of the proscenium opening or arch. The controls for these speakers should be positioned in a central location of the seating area rather than in a separate room in the back of the auditorium.

## Orchestra Pits

If the auditorium has an orchestra pit, soundproof curtains should be installed that can be opened and closed as the conductor chooses to control the noise level.

# AUDITORIUM ACOUSTICS: 8 FACTORS

(Silverman, 2017)

When designing any venue, the intended types of performance provide clues about the shape and size of the room, the desired feeling of intimacy and collective engagement, and the overall distribution of seats within the room as related to the performers on stage. Theatre and dance performances are most successful in a room that provides a sense of intimacy. However, as we look to the future of performances new definitions like "immersive" and "experiential" are being developed. With this in mind, a multi-use venue with flexibility to support a variety of performance types could be ideal. These solutions might include flexible seating arrangements and stage configurations, variable acoustics or room divisions that alter the volume of the room.

## Seating + Sightlines

Sightlines ensure that every seat has an unobstructed view of the stage, this will impact the seat distribution and room shape. As a rule of thumb, these all patrons should maintain a three-quarters view of the stage, or their experience will be drastically diminished. Rows are often curved or angled towards the stage so that patrons do not have to shift sideways or turn their heads to watch the performance. Generally, a room should be designed with no less than an every-other-row sightline - the patron should have an unobstructed view of the stage over the head of those seated two rows in front of them. The obstruction of the row directly in front of them is resolved through the use of a staggered seating pattern. You will also want to consider row spacing, an average minimum dimension might be 30" but audiences will be more comfortable if it is increased to 36" . Code requirements for egress and accessibility will determine the required aisle widths, which will be based primarily on the auditorium's capacity.

## Lighting

An auditorium lighting design needs to provide two fundamental components - illumination and atmosphere. The patrons need enough light to work and enjoy the space, but it also needs to convey the intended feeling that fits the program. The design needs to incorporate fixtures which will provide suitable color rendering, in areas which are meant to be used for reading the CRI should be 90 or greater. Down-lighting for general illumination is not only necessary, but it serves a role in creating excitement - as the houselights dim the audience knows the performance is about to start. Only high quality LED fixtures should be used, as most cameras are very sensitive to flickering which could produce poor quality recordings.

## Acoustics

The overall physical volume and acoustics of a drama room are controlled so that the room supports the performance with little or no direct amplification. A dance theatre can use amplified or live acoustic music, and may require more variable control of the acoustical environment. The geometry of the room should be designed to naturally enhance the acoustics of the room, while also taking variable and enhanced acoustic materials like reflectors and applied wall materials into consideration.

## Other Considerations

Delivery access, wide internal passage ways/ doorways and storage space are the most critical auditorium features that contribute to running a smooth installation and daily operation. Having outside delivery access for trucks speeds up the loading and unloading process, features like a truck height dock and adequate parking lot space for large delivery trucks are helpful. Wide internal passageways and doorways allow equipment to be moved quickly and efficiently in a space, especially with rolling carts. Lastly, having adequate storage space is helpful to organize and readily access unused equipment, contributing to increased speed when swapping between stage or seating configurations. Stage floors are subject to a minimum uniformly distributed live load of 150 pounds per square foot. Risers need to be engineered using a minimum of 100 pounds per square foot of uniformly distributed live load

# AUDITORIUM DESIGN 101: THE COMPLETE GUIDE

(Auditorium design 101, 2017)

One of the biggest debates in the architecture and preservation world is how to handle additions with regards to historic projects. Should the design blend into the existing structure, or stand in jarring contrast?

## Blend In:

An architect might design in a particular style decades or even centuries after it first arose, perhaps to sustain a sense of visual continuity. However, preservationists today often insist on making new interventions "differentiated" from the historic. Subtle distinctions in materials can allow observers to see a restored building as a whole, while at the same time, noting that is has changed over time.

There is no such thing as "false history" - there is only the true history of whatever choices we make, including the possibility that we choose to make buildings today that resemble buildings built at some other time.

## Stand Out:

It is the contrast itself, the difference expressed between "our time" and "their time" which seems so exciting. The spirit of the age [zeitgeist] is revealed by developments in art, just as it is by political, social and technological changes. It is wrong to see the evolutionary progress as being misplaced. The chronological placement in the sequence of development does not determine the aesthetic merit of individual works. New design can rise within and among the old, without loss of character, while preserving or even increasing he beauty that has already preceded it.

# NEW BUILDINGS AMONG THE OLD

(Semes, 2008)

## Definition:

Facadism involves retaining the facade of a [usually historic] building that is deemed to have some architectural or other cultural value and building fresh behind it.

The construction of a facade in a style [usually historical] which fits in with the prevailing style of its surroundings, but bears little to no relation to the spaces behind.

## Positives:

Where it is not possible to retain a building in its entirety, and the loss of at least its interior is unavoidable.

If buildings are seen more as theatre or sculpture, we may begin to think of rigid integrity as constricting.

It may be that a high-quality stone facade is worth keeping: it is durable, it improves with age, it requires little maintenance.

Some facades may have no special value but may simply contribute significantly to a townscape or streetscape.

## Negatives:

A rational relationship is expected between all parts of a building, form should follow function.

Facadism in not truthful, as it deceives patrons as to what is inside.

# THE ETHICS OF FACADISM

(Bargery, 2005)

The Royal Ontario Museum Crystal in Toronto may be the most hated building in Canada, but it's been over 10 years since the design and opinions may have changed.

## NEGATIVE:

"To be perfectly frank, I think it's a disaster"

"We're thinking some trees here to block the view"

"One of my clients said it's a good thing she's losing her eyesight"

## POSITIVE:

"As much as the addition may be about spectacle, especially architectural spectacle, there's nothing flashy or crass about it."

"The Crystal seemed to express a desire to bring not just the museum, but the whole city into the 21st century without diminishing the past"

"Beauty emerges when design misbehaves."

# ROYAL ONTARIO MUSEUM - TORONTO

(Viola, 2017)

The Space Asia Hub in Singapore is furniture showroom spanning 40,000 sq ft across three distinct yet conjoined buildings. This project is located in the midst of the Arts and Entertainment District. Housed within a unique cluster of heritage buildings within a conservation area. Through adaptive reuse, this redevelopment project strives to create a contemporary showroom that retains the old-world charm of its heritage stature.

The design strategy aims to play up contrasts between the "old" and the "new". The three units are given distinct interior expressions in response to their existing architecture. At the street level, an urban plaza aims to draw attention to the restored buildings.

The first building is an immaculate white bungalow, The Villa. The contemporary Glass Block building stands at the center of the multiplex. It is especially attractive at night, when its windows are a riot of colors led by the eye-catching chairs in candy shades. The architectural trio is completed by the Heritage House, a conservation house with industrial-inspired interiors.

# SPACE ASIA HUB - SINGAPORE

(WOHA, 2011)

# INTERVIEWS

## BILL JENKINS, DEPARTMENT CHAIR

**TOPIC**
The Department of Theater and Dance has outgrown their current facilities and is in need of a larger space that also reflects the high standards of their program. The newly acquired Northside Middle School by Ball State University may be a potential option following renovation.

**CURRENT ISSUES DISCUSSED**
Their production related spaces are drastically too small, and do not meet accreditation requirements.

They do not have enough storage that is easily accessible for production equipment, props, costumes and scenes. Items are currently stored in five off-site spaces. They are unable to transport scenic displays from storage to stage due to low ceilings or distance off campus.

The students feel their academics are compromised due to the facilities. The lack of space is affecting the quality of shows.

**POSSIBLE SOLUTIONS DISCUSSED:**
A space where the entire department can meet and collaborate - both in the classrooms, studios and shops.

Ensure the department is self-contained, with 6-8 studios for both dance and acting.

Develop better integration of Northside renovation with the main campus.

Exterior facade update, to reflect the quality of the interior functions.

**PRODUCTION SPACES REQUIRED:**
Scene shop and storage
Costume shop and storage
Lighting lab
Sound studio
Hair and Makeup
Prop shop and storage
Lockers and dressing rooms

**PERFORMANCE SPACE REQUIREMENTS:**
***Main Stage, Proscenium***
Seats 400
Need to consider backstage, trap floors, fly wires

***Strother Studio Theater***
Flexible black box, theater in the round
Needs to be square, not rectangle
4 shows per year

***The Cave Theater***
Used for student directed productions
6 shows per year

***Korsgaard Dance Studio***
Currently the largest and most appropriate theater space on campus
Used for studio dance performances
4 shows per year

## INTRODUCTION INTERVIEW - AUGUST 23, 2019

(B. Jenkins, personal communications, August 23, 2019)

# FACULTY SURVEY - SENT SEPTEMBER 26, 2019

| | |
|---|---|
| **OFFICE DESIGN CONSIDERATIONS:**<br>Do you regularly meet with students in your office? If so, how many at a time. | Yes, 1-2 students at once<br>Yes, 1-5 students at once<br>Yes, 10-12 students at once<br>Constantly |
| Do you need any special accommodations? (Instruments, soundproofing) If so, please describe. | A window + a more "inviting" space<br>Piano, soundproofing + good acoustics<br>More space to meet + work with students<br>Large format printer<br>Recording + playback system |
| Are there any additional shared faculty spaces you would like but do not currently have? (Conference spaces, lounges, kitchenette) | Kitchenette<br>Big Conference Space - both in Theatre + Dance<br>Lounge |
| In your opinion, what is the biggest issue with your current office? | Too small, not enough space for guest seating<br>No window or natural daylight<br>Needs better temperature control |
| **CLASSROOM DESIGN CONSIDERATIONS:**<br>Currently, how many students do you have in each of your classes? What is your preferred class size? | Freshmen Experience 185<br>Intro to Theatre 125<br>10-15 or 20-35 |
| What kind of activities occur during your classes? | Lectures, video viewing + discussion<br>Reading plays, workshopping + a lot of discussion<br>Singing, performing + coaching<br>Whole-body exercises, drama games + scene work<br>Computer work + studio art work<br>Dancing: small and big combinations |
| In your opinion, what is the biggest issue with your current classroom? | Noise bleed<br>Not enough space<br>Poor technology<br>Lack of props + proper equipment |
| Please describe your ideal classroom. | Lecture hall with bag storage + side space to break out<br>An open space with movable chairs<br>Conference-style tables arranged in a square with comfortable chairs<br>A dance studio with sprung floors + mirrors that have optional curtains |
| **Is there any other information we should consider?** | It would be nice to not have to look at white walls all the time. Maybe there is a color that enriches thinking and relaxation. Maybe a creative space that has an open floor plan concept. Collaborative space.....? |

(18 Ball State University Faculty Responses)

| | |
|---|---|
| **CLASSROOM DESIGN CONSIDERATIONS:**<br>In your opinion, what is the biggest issue with the classroom facilities? | Not enough space<br>The rooms feel like normal classrooms, rather than physical work rooms<br>Not enough barre room<br>Not enough windows<br>No personality |
| What does your ideal classroom look like? | Plenty of space to move around in<br>Colors, windows, high ceilings, a good ventilation system<br>Shaped like a rectangle (Dance)<br>Wide open spaces, minimal distractions, earthy tones<br>Large tables, movable desks<br>Minimal distractions, conductive to learning + performing |
| **SUPPORT SPACE DESIGN CONSIDERATIONS:**<br>What are your feelings regarding the current costume shop and storage areas? Please explain. | Could be nice if they had a separate space for teaching<br>More storage that is quickly accessible<br>More space to work<br>Better ventilation is needed near the dye room |
| What are your feelings regarding the current set production space capabilities? Please explain. | Too crowded, not enough space<br>Wish they were separate from stagecraft |

| | |
|---|---|
| **PERFORMANCE SPACE DESIGN CONSIDERATIONS:**<br>In your opinion, what is the biggest issue with the performance spaces? Please specify which theater or studio you are referring to. | Too small<br>Poor aesthetics, dingy<br>Not enough seating<br>Poor sound proofing between performance spaces<br>Lack of accessibility |
| What does your ideal performance space look like? | Roomy, up to date with technology<br>Great acoustics, nice house lights, wheelchair accessible<br>Decently sized backstage, plenty of seating<br>Stat of the art, renovated, polished look<br>Versatile + usable<br>Larger orchestra pit |
| From your experiences in the various theaters and studios, what is the biggest problem with the backstage area? Please specify which theater or studio you are referring to. | Too small + cramped<br>No enough dressing room space<br>Not enough space in the wings<br>Long travel time from one side to the other |

## STUDENT SURVEY - SENT SEPTEMBER 26, 2019

(29 Ball State University Theater and Dance Student Responses)

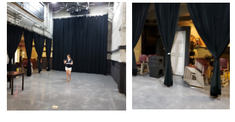
# OBSERVATIONS

**AC 009 - Faculty Office + Wig Shop**
Makeup equipment is stored here that can be subject to too much moisture (dry rot)

**AC 004 - Musical Theater Lab**
Space must have 25 working pianos, can be upright or keyboards

**AC 007A - Theater Library**
Students can check out materials, lots of scripts and sheet music that can be copied and printed

**AC 007 - Cave Theater**
Director's booth is only accessible by ladder. Needs to be half the size of a traditional black box. Needs to have a wood sprung floor. Currently used for acting classes, should not be used for anything other than performances

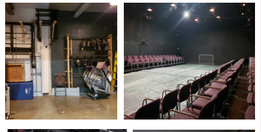


**AC 209G - Production Mtg Office**
Lots of conference calls and video calls. Needs to fit 25+ people

**AC 311 - Recruitment Center**
Should be dedicated only to the recruitment of students, a showcase space. Needs to be double the size, accommodate groups

**AC 008 - Prop Storage**
Completely filled. Space is subject to fluctuation in temperature and humidity, which causes damage.

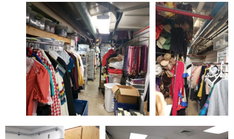
**TH 014 + 016 - Box Office**
Space used by 6-8 people, needs to be larger. Needs a secure place for money.



**TH 100 - Strother Theatre**
Needs to be square and handicap accessible. Increase corner access and backstage area.

**TH 101 - Main Stage Theatre**
Needs increased square footage in the stage, wings and trap. Sound bleed from Emens can interrupt shows. Sound system needs to be in the middle of the seats, and handicap accessible. Wings space should be 3/4 width of proscenium.

**TH 103 + 110 Scenery Shop**
Needs to have a secured lock up for tools, this is very important. No ventilation or dust collection and needs to be larger. Every show is built and painted here. Paint frame needs to be 1.5 times the width of the proscenium.



**TH 002 - Costume Shop + Storage**
Space is completely filled, not correctly ventilated - especially the dye room. Needs one large table and closet for each show, about 4. Need a washer and dryer. Storage needs to be extremely organized, movable shelves. Costume rented out to community.

**TH 008 - Dressing Rooms**
Attached bathrooms and showers needed. Every person needs a locker. Total of 5 dressing rooms needed - mens lead, mens chorus, womens lead, womens chorus, children, faculty. How do we deal with gender-neutral or trans-gender?

**AR 217 - Recital Hall**
Most appropriate space they have for recitals. Movement, combat, musical theater classroom.

**OW 101 - Main Stage Rehearsal**
Most important to be flexible and open, able to tape set design on floor. Size of stage plus wing space.

**OW 154 - Strother Rehearsal**
Size of stage plus some wing space. Important to have a wood sprung floor and good acoustics.

**OW 155 - Cave Rehearsal**
Size of stage plus some wing space. Important to have a wood sprung floor and good acoustics.

**BG 202 - Dance Studio**
Space needs to be square or rectangle, room to storage of barres and shoes/bags at entrance.

**BG 213 - Korsgaard Dance Studio**
Best dance space on campus, lots of space - check NASD accreditation standards.

## CURRENT FACILITY TOUR - SEPTEMBER 13, 2019

Personal Images

**STUDENTS' OFFICE:**
Ushers + staff hangout before show, just standing around.
Stage Managers are constantly up + down, watching and helping patrons.
Ushers giving directions, and directing activity.

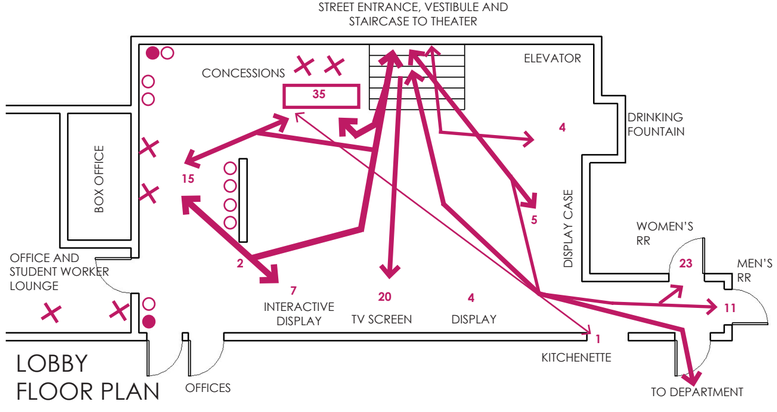
**CONCESSIONS:**
Open before show + during intermission, donuts + water available for any donation.
Many buyers are friends of workers or professors, tend to just hang out around stand.

**MEN + WOMEN RESTROOMS:**
Complained of hitting hands on the sink faucets.
Poor signage, girl almost walked into mens.
Majority of activity during intermission, crowded.
Many struggled to find, looking around or asked the ushers for directions.
Narrow hallway, clusters easily.

**GENERAL LOBBY AREA:**
Professors + friends dropping in to mingle + say "Hi" to staff.
No identity, sterile + generic.
Sound quickly increases as people enter + mingle, space fills up quickly.
Students cluster, adults weave through and elderly look at displays.

1 WOMEN'S RESTROOM
2 LOBBY, BOX OFFICE
3 BOX OFFICE
4 KITCHENETTE
5 LOBBY, ENTRANCE
6 STUDENTS' OFFICE
7 LOBBY

OBSERVERS | EMPTY SEAT | PATH OF TRAVEL | 35 NUMBER OF PATRONS | PERMANENT STAFF




LOBBY FLOOR PLAN

**VESTIBULE + STAIR CASE**
Most people walked directly upstairs, though some looked confused when they walked in. They stopped on the first landing + asked others if they go up or down.

An elderly couple walking up the stairs caused a large group of people to backup.

Doors opened at 7:00 pm, the stairs were backed up by 7:17 pm.

Many people mingling or looking for their tickets on the stairs + landings.

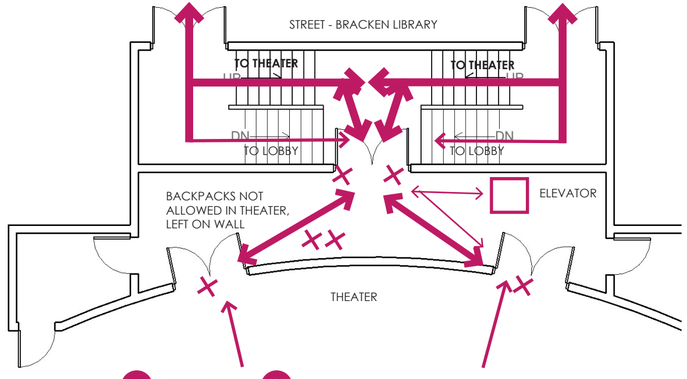
**THEATER ENTRANCE**
Backpacks not allowed into the theater, so students left them lining the wall.

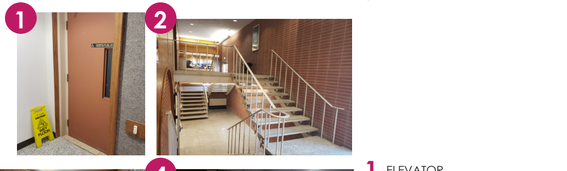
**DURING INTERMISSION**
Lots of up + down movement on the stairs.
Some groups talking on the landings, or using their phones.
Many patrons asked for directions to the restrooms.

Most people stayed in the theater, talking and interacting with the cast. A majority stood in the aisle.

VESTIBULE FLOOR PLAN

PATH OF TRAVEL | PERMANENT STAFF



1 ELEVATOR
2 STAIRCASE DOWN, LOBBY + UP, THEATER
3 LOWER VESTIBULE
4 THEATER SEATING

## MAIN STAGE THEATER - SEPTEMBER 20, 2019

Personal Images

**SIGNAGE!** There is no wayfinding to the theater or restrooms.

**ENTRANCE** is confusing and small, definitely not ADA accessible.

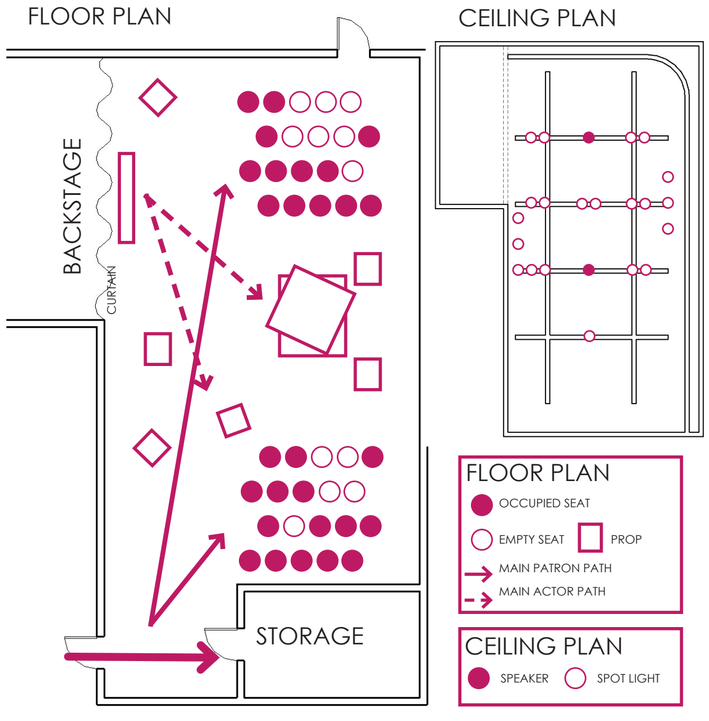
No elevator, at least not easily found. Theatre is located in the basement, so how to students or patrons with accessibility issues attend?

Acts as flexible black box, should be half the size of Strother Theatre.

Currently concrete walls, floors and ceilings - not very good acoustics and very hard on actors' body. Instead, the space should have a wood sprung floor.

Student directed and written, use stacking chairs, basic "imaginary" props.

Space gets warm and stuffy with all the lights and people.




## THE CAVE THEATER - SEPTEMBER 24, 2019

**ENTRANCE/LOBBY**
Patrons came in looking for the Cave Studio Theater. To quote a patron, the directions are "clear as mud". Patrons were also confused as to where they should go/scan their tickets.

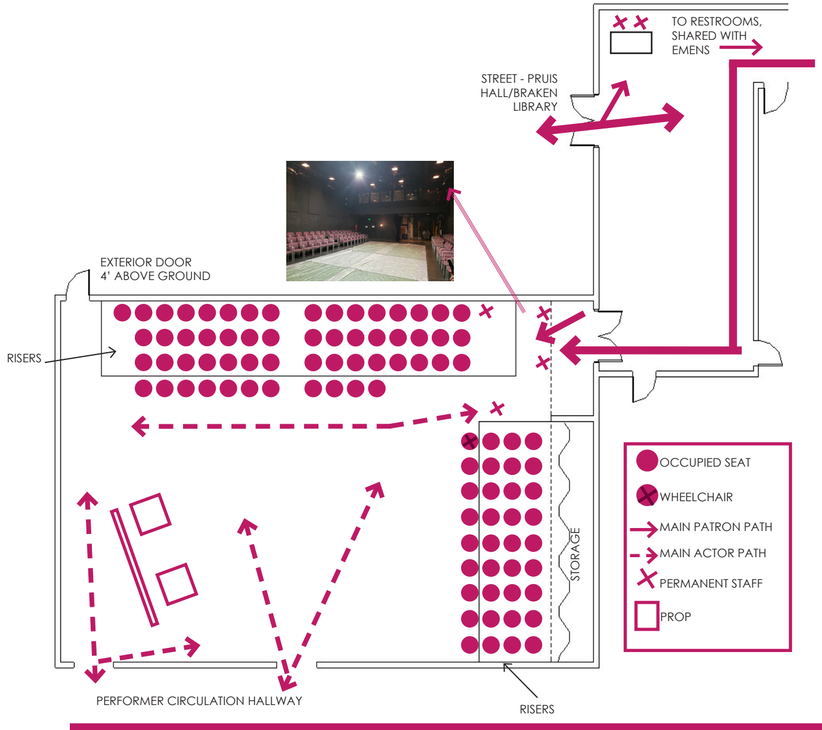
The "lobby" is loud, cramped, boring and confusing for patrons.

*Intermission:* A couple people went to the restroom, three people used the vending machine. There were a lot of leaves being tracked in from outside, and people complained that it was cold.

**THEATER**
Sold out opening, all the seats were full and arranged on risers. It's important for the performers and student management to be able to arrange the space as they see fit.

Neither ADA Regulations, nor inclusive design was considered within this space. The call/production box is only accessibly by ladder, preventing some students from being able to participate/learn.

*Intermission:* A lot of people were standing in groups within the performance area.




## STROTHER STUDIO THEATER - OCTOBER 18, 2019

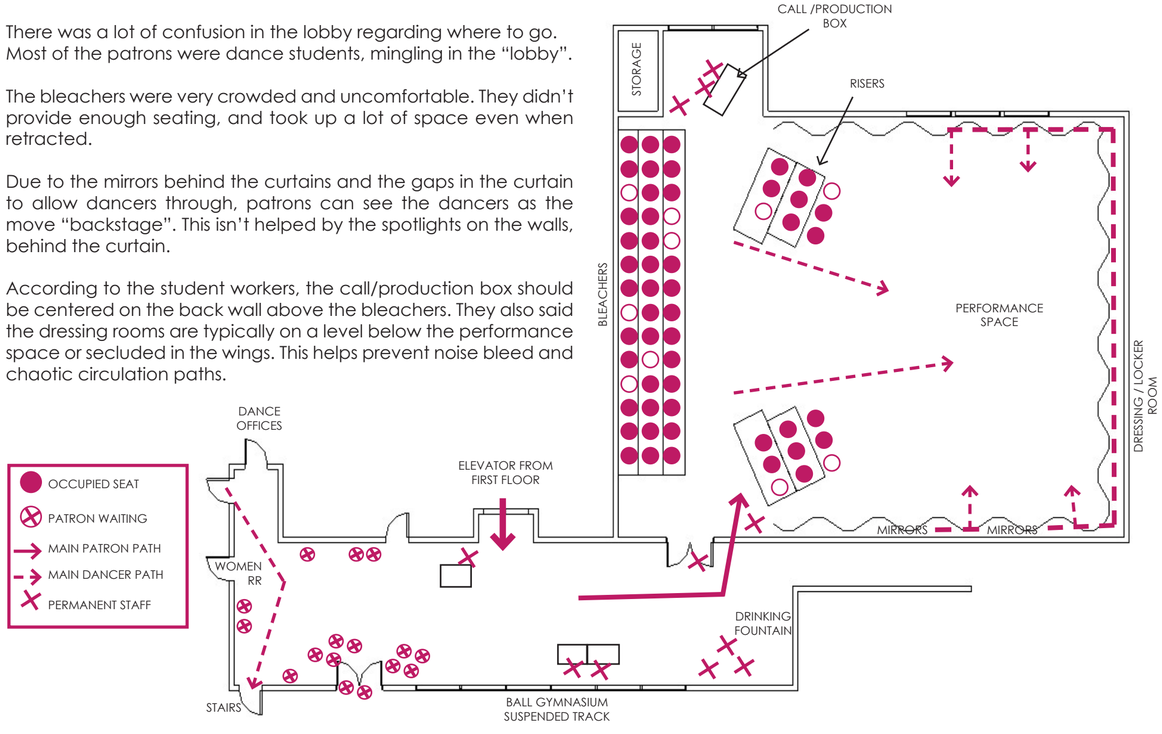
Personal Images

There was a lot of confusion in the lobby regarding where to go. Most of the patrons were dance students, mingling in the "lobby".

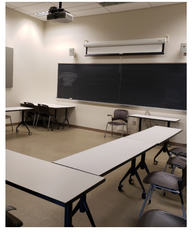
The bleachers were very crowded and uncomfortable. They didn't provide enough seating, and took up a lot of space even when retracted.

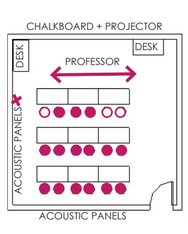
Due to the mirrors behind the curtains and the gaps in the curtain to allow dancers through, patrons can see the dancers as the move "backstage". This isn't helped by the spotlights on the walls, behind the curtain.

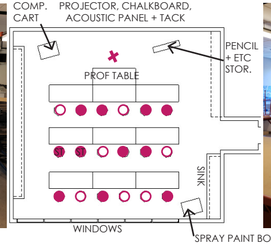
According to the student workers, the call/production box should be centered on the back wall above the bleachers. They also said the dressing rooms are typically on a level below the performance space or secluded in the wings. This helps prevent noise bleed and chaotic circulation paths.

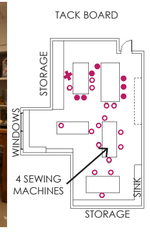



## KORSGAARD STUDIO - NOVEMBER 15TH, 2019










### GENERAL CLASSROOM

This classroom is able to be rearranged into any configuration the professor wants. The students said that it was a different configuration almost every class period.

There is no specific desk for the professor, so she put her papers on the floor and all over the front desk.

The only light switch in the room is by the door, so the professor had to walk back there or ask a student to get the lights when watching a video.

The ceiling is higher than the typical 8', making the room feel strange and dark.

### DESIGN RENDERING STUDIO

Electric outlets from the ceiling. Lots of shelving and cabinetry along the walls, but still not enough.

*Student Opinions:* They love the daylight and how bright the room is. The only thing they wish they had was pose-able lights, both incandescent and fluorescent. They like having a place/desk of their own.

They need a lot of storage for: past projects, large cutting boards, water cups, foam core scrapes.

Water and electricity are essential.
Students need the ability to sit and stand.

### COSTUME DESIGN STUDIO

Students participating in costume design presentation/critique, based on their interpretation of a play.

There was a lot of clutter in front of tack board, students had to use a stool to pin up their designs. There also wasn't enough space, so the students had to take turns which wasted class time between presentations. The lighting was uneven, causing problems with the color rendering and image quality.

Mismatched stools with no back support, all the students were leaning against the tables.

## UNIVERSITY OF MICHIGAN DEPARTMENT OF THEATER TOUR - OCTOBER 7, 2019

Personal Images

# DEFINITIONS

**ACTING AREA** This is the location that is used for acting (it's also where much of the set is placed) (Parts, 2016)

**APRON** Sometimes known as the forestage, when the stage extends past the proscenium into the auditorium (Parts, 2016)

**BLACK BOX / STUDIO THEATERS** These are flexible performance spaces which when stripped to their basics are a single room painted black, the floor of the stage at the same level as the first audience row. Usually these spaces allow for the temporary setup of seating in a number of different configurations (Grundy, n.d.)

**CAVEA** Or tiered semicircular seating area (Jackson, n.d.)

**CROSS OVER** This area is used by stage hands, technicians, and performers to travel from "stage left" to "stage right", while remaining out of the audience's sight (Parts, 2016)

**DOWNSTAGE** The section of the stage closest to the audience (Parts, 2016)

**HORIZONTAL SEAT DISTRIBUTION** Studies the location of seats are related to the stage in plan view (Auditorium 2017)

**OFF RIGHT / OFF LEFT** The areas on the performers' right and left that are out of sight of the audience. These often serve as exit points for the performers when they need to leave the scene or get off the stage (Parts, 2016)

**ORCHESTRA** The flat, circular area in front of the stage within a Greek amphitheater, where the chorus performed and danced (Jackson, n.d.)

**PARTERRE** Was not occupied with seating, but instead employed for dance and additional celebrations (could also be flooded) (Tidworth, n.d.)

**PROSCENIUM** The frame or arch separating the stage from the auditorium, through which the action of a play is viewed. In the ancient Greek theatre, the proscenium originally referred to a row of colonnades, supporting a raised acting platform and afterward to the entire acting area (The Editors, 2008)

**PROSCENIUM STAGE** A proscenium stages has an architectural frame, known as the proscenium arch, although not always arched in shape. The stages are deep and sometimes raked, meaning the stage is gently sloped rising away from the audience. It will often include an orchestra pit for live music and a fly tower for the movement of scenery and lighting (Grundy, n.d.)

**SEAT DISTRIBUTION / ROOM SHAPE** Concerned with the position and arrangement of seats within the audience chamber

**SIGHTLINES** Ensure that every seat has an unobstructed line of sight to the performance, determined by studying the distance and viewing angles from the most extreme seats both near and far (Auditorium, 2017)

**SKENE** Could be used as a backdrop and a place where actors could change costumes (Jackson, n.d.)

**STAGE LEFT** This is the area to the performer's left (the audience's right) (Parts, 2016)

**STAGE RIGHT** The area to the performer's right (the audience's left) (Parts, 2016)

**THE HOUSE LEFT / RIGHT** The area where the audience sits to view the performance. Left and right designate which side of the theatre they are watching the performance from (Parts, 2016)

**THEATER IN THE ROUND** These have a central performance area enclosed by the audience on all sides. The arrangement is rarely 'round': more usually the seating is in a square or polygonal formation. The actors enter through aisles between the seating (Grundy, n.d.)

**THEATRON** The viewing area of the Greek theater, where the word “Theater” is derived from (Gill, 2019)

**TOURNAMENT OPERA** A mix of opera and fighting (Tidworth, n.d.)

**VOMITORIES** Aisles between the seating (Gill, 2019)

**UPSTAGE** The area that is furthest away from the audience (Parts, 2016)

# CODES

## Studio Spaces

Normally, a minimum of two large dance studios are provide

Unobstructed space, providing a minimum of 2,400 square feet overall, and providing a minimum of 100 square feet per dancer

Ceiling height of at least 15 feet

Floors with the necessary resilience for dance (i.e., sprung or floating floor) and with surfacing appropriate to the nature of the dance activity

Adequate fenestration, lighting, acoustical ambiance, ventilation, and temperature control

Adequate mirrors and barres.

Adequate locker rooms, showers, drinking fountains, restrooms, and access to first aid.

Acoustical treatments appropriate to dance facilities shall be provided.

Dance units with goals and objectives in disciplines and specializations that require constant updating of equipment must demonstrate their capacity to remain technologically current.

All instructional facilities shall be clean, accessible, safe, and secure, and shall meet the standards of local fire and health codes.

## Guidelines + Recommendations

Lighting equipment in teaching and performance spaces.

A piano in each studio.

Video, film, and image projection equipment in appropriate teaching stations.

Sound systems in each studio and in production areas.

A variety of percussion instruments in appropriate teaching stations.

Access to technological equipment such as computers appropriate to the research, teaching, artistic, and management needs of the program

Adequate, safe, and secure storage space should be provided for instructional equipment.

Adequate, safe, secure, and well-equipped space should be provided for costume and scene construction, maintenance, and storage.

Appropriate and secure dressing and shower facilities should be provided for students and faculty

Adequate office space for faculty and staff should be provided in close proximity to the instructional facilities.

# NAS-DANCE ACCREDITATION STANDARDS

(NASD, 2019)

## Guidelines + Recommendations

The number of rehearsal, performance, and classroom spaces and the amount and availability of equipment must be adequate to serve the scope of the program and the number of students enrolled.

Theatre units with goals and objectives in areas that require constant updating of equipment must demonstrate their capacity to remain technologically current.

Ventilation and safety treatments appropriate to theatre facilities shall be provided.

All instructional and production preparation facilities shall be accessible, safe, and secure, and shall meet the standards of local fire and health codes.

A well-equipped theatre with suitable acoustics should be available when needed for theatre production and for use as a class laboratory.

Adequate, safe, secure, and well-equipped space should be provided for costume and scene construction, maintenance, and storage.

Adequate, safe, and secure storage space should be provided for instructional equipment.

Appropriate and secure dressing and shower facilities should be provided for students and faculty.

Adequate office space for faculty and staff should be provided in close proximity to the instructional facilities.

# NAS-THEATER ACCREDITATION STANDARDS

(NAST, 2019)

## Introduction

This is intended to outline general non-structural fire and life safety code compliance and to serve as a coordination document for the Northside Middle School Renovation (herein referred to as the Project). The building code applicable for this project is the 2012 International Building Code (IBC) with local amendments. The Authority Having Jurisdiction (AHJ) for the project will be the City of Muncie Building and Fire Departments unless otherwise noted.

## Project Description

Northside Middle School is an existing two-level middle school at 2400 W Bethel Ave, in the City of Muncie. The project was constructed in 1970 and has not be renovated since. The scope of the project includes complete renovation of the interior spaces and major renovation of the exterior facade.

## Applicable Codes + Standards

A list of codes and standards applicable to this project is as follows:

NFPA Codes & Standards
Indiana Chapter 11 Accessibility Code
Indiana Mechanical Code 2008
IPC 2012 Edition (Plumbing)
International Building Code 2012 with Amendments
NEC 2009 Code (Electrical)
Indiana Fire Code 2008 675IAC-22-2.4
Fitwel Standards

# PROJECT OVERVIEW

(Kennon & Harmon, 2018)

| Occupancy Classification | ICC International Building Code | | NFPA Life Safety Code and NFPA 5000 | |
|---|---|---|---|---|
| ASSEMBLY | A-1<br>A-2<br>A-3<br>A-4<br>A-5 | Assembly, Theaters (Fixed Seats)<br>Assembly, Food and/or Drink Consumption<br>Assembly, Worship, Recreation, Amusement<br>Assembly, Indoor Sporting Events<br>Assembly, Outdoor Activities | A-A<br>A-B<br>A-C | Assembly, OL > 1000<br>Assembly, OL > 300 ≤ 1000<br>Assembly, OL > 50 ≤ 300 |
| BUSINESS | B | Business | B<br>AHC | Business<br>Ambulatory Health Care |
| EDUCATION | E | Educational (includes some Day Care) | E | Educational |
| FACTORY/INDUSTRIAL | F-1<br>F-2 | Factory Industrial, Moderate Hazard<br>Factory Industrial, Low Hazard | I-A<br>I-B<br>I-C | Industrial, General<br>Industrial, Special Purpose<br>Industrial, High Hazard |
| HAZARDOUS | H-1<br>H-2<br>H-3<br>H-4<br>H-5 | Hazardous, Detonation Hazard<br>Hazardous, Deflagration Hazard or Accelerated Burning<br>Hazardous, Physical or Combustible Hazard<br>Hazardous, Health Hazard<br>Hazardous, Hazardous Production Materials (HPM) | | Included in Group I |
| INSTITUTIONAL | I-1<br>I-2<br>I-3<br>I-4 | Institutional, Supervised Personal Care, OL > 16<br>Institutional, Health Care<br>Institutional, Restrained<br>Institutional, Day Care Facilities | D-I<br>D-II<br>D-III<br>D-IV<br>D-V<br>H<br>DC | Detentional/Correctional, Free Egress<br>Detentional/Correctional, Zoned Egress<br>Detentional/Correctional, Zoned Impeded Egress<br>Detentional/Correctional, Impeded Egress<br>Detentional/Correctional, Contained<br>Health Care<br>Day Care |
| MERCANTILE | M | Mercantile | M-A<br>M-B<br>M-C | Mercantile, > 3 levels or > 30,000 SF (2800 SM)<br>Mercantile, ≤ 3 stories or > 3000 SF (280 SM) and ≤ 30,000 SF (2800 SM)<br>Mercantile, 1 story ≤ 3000 SF (280 SM) |
| RESIDENTIAL | R-1<br>R-2<br>R-3<br>R-4 | Residential, Transient<br>Residential, Multi-Dwelling Unit<br>Residential, One and Two Dwelling Units<br>Residential, Care and Assisted Living Facilities OL > 5 ≤ 16 | R-A<br>R-B<br>R-C<br>R-D<br>R-E | Residential, Hotels, and Dormitories<br>Residential, Apartment Buildings<br>Residential, Lodging or Rooming Houses<br>Residential, One and Two Family Dwellings<br>Residential, Board and Care |
| STORAGE | S-1<br>S-2 | Storage, Moderate Hazard<br>Storage, Low Hazard | S | Storage |
| UTILITY/MISCELLANEOUS | U | Utility and Miscellaneous | | Special Structures and High-rise Buildings |

**NOTE:** The Life Safety Code designates between new and existing, the building codes do not.
**OL = occupant load, SF = square feet, SM = square meters**

## 10 Major Occupancy Classifications with Sub-Classifications

***Assembly (see Section 303): Groups A-1***, A-2, A-3, A-4 and A-5
***Business (see Section 304): Group B***
**Educational** (see Section 305): Group E
***Factory and Industrial (see Section 306):*** Groups F-1 and ***F-2***
**High Hazard** (see Section 307): Groups H-1, H-2, H-3, H-4 and H-5
**Institutional** (see Section 308): Groups I-1, I-2, I-3 and I-4
**Mercantile** (see Section 309): Group M
**Residential** (see Section 310): Groups R-1, R-2, R-3, R-3.1 and R-4
***Storage (see Section 311):*** Groups S-1 and ***S-2***
**Utility and Miscellaneous** (see Section 312): Group U

## Construction Types

**Type I + II:** strictest construction types, constructed with steel and concrete, noncombustible
***Type III: exterior masonry, interior and roof wholly partially wood, combustible***
**Type IV:** mill construction/heavy timber, structural members are large and the char creates a natural fire resistance
**Type V:** most combustible construction type, basically an all wood structure

# OCCUPANCY CLASSIFICATION + TYPE OF CONSTRUCTION

(Kennon & Harmon, 2018)

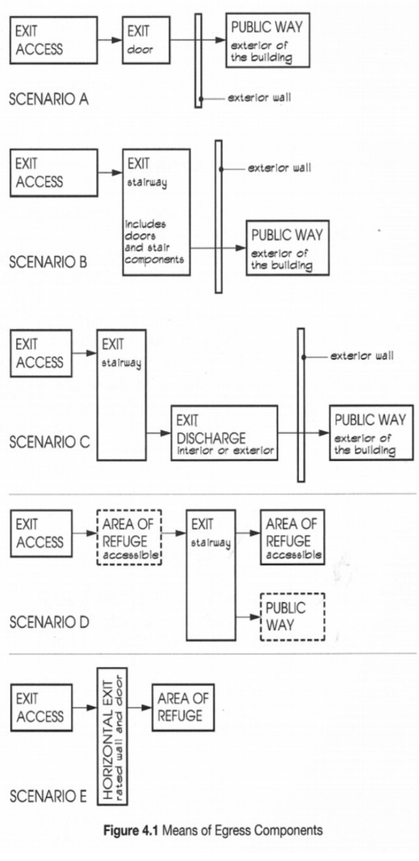



**Figure 4.1** Means of Egress Components

## Doors

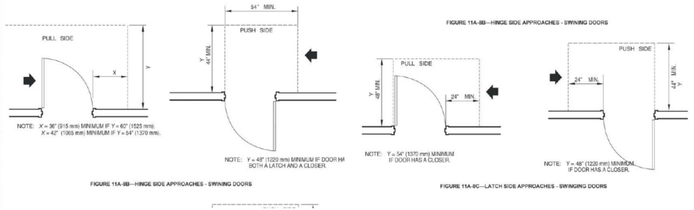
Height: Min. 80"

Clear width: 32" (per ADA, building codes, ICC/ANSI) – typically this means a 36" wide door

Swing: swing in direction of exit travel, however to avoid obstructing the required widths, the codes allow some smaller rooms (≤ 50 occupants) to have doors that swing into a space.

Door cannot reduce any required stair landing dimension or corridor width by more than 7 inches when the door is fully open.

Accessibility maneuvering clearances: depends on the approach to the door (from the push or pull side and hinge or latch side)
- Min. 24", 12", 18"




# MEANS OF EGRESS

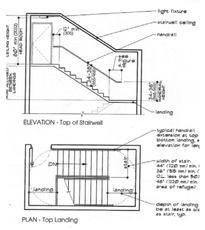
(Kennon & Harmon, 2018)

## Threshold + Hardware

**Threshold:**
Finished floor surface or landing on either side of interior door must be at same elevation as threshold or within ½ inch.
- ADA and ICC/ANSI req bevel on both sides of threshold if transition > ¼"

**Hardware:**
Hardware on means of egress doors also regulated for safety and for accessibility
Hardware on exit access doors must be easily used by occupants
- Locks: locks that would hinder an egress are not allowed
- Door pulls: ADA, ICC/ANSI require that all door pulls consist of accessible operating devices. Lever, push-type and U-shaped pulls are accessible. Must be operable with one hand.
- Closers may also be required by the codes so that the door is self-closing. Doors within rated walls are required to be self-closing to maintain the fire separation. Some cases, restroom doors are required to be self-closing for privacy and accessibility.

Closer must not interfere with head clearance requirements for door way. Speed of closer regulated by codes.
- Max. allowable force to manually open door: 5 - 15 lbs
- Max. allowable force to manually open other door types (e.g, revolving, automatic swinging/sliding doors): 30-180lbs




## Stairs

All stairs are required to meet specific code and accessibility requirements
- Tread depth: min. 11"
- Riser height: 4 to 7"
- Each run of stairs must have a landing at the top and the bottom
- Usually code do not allow stairway to rise more than 12' without an intermediate platform or landing
- Width of stair: 44" min. typ.
- 36" min: if O.L. <50
- 48" min: if area of refuge

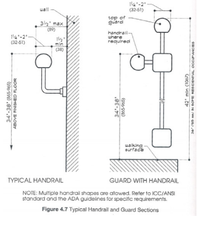


Figure 4.7 Typical Handrail and Guard Sections

## Handrail + Guard

If glass is used as part of the handrail or guard, it must pass safety glass requirements
Handrails are critical during an emergency. When stairs are full of smoke, handrails are often the only guide to an exit
- Guard height: 42" high
- Constructed so that nothing with a diameter of 4" can pass through any opening
- Handrail height: 34" – 38"
- Handrail size: 1 ¼" to 2" wide
- Handrail distance from wall: 3 ½" max.

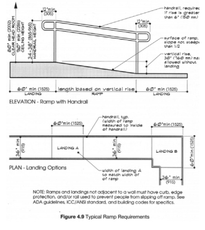


Figure 4.8 Typical Ramp Requirements

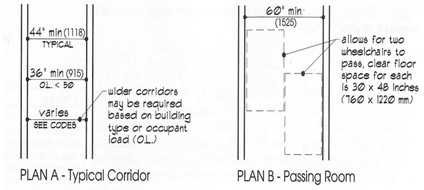
## Ramps

Slope ratio: 1:12 (1 unit vertical to 12 units horizontal)
Ramp width: min. 36"
Landing Width: min. equal to width of ramp + Length: 60" min.
- Frequency: 1 landing every 30" rise or every 30' length of ramp

Ramps with changes in direction: Provide min. 60" x 60" turnaround landing area

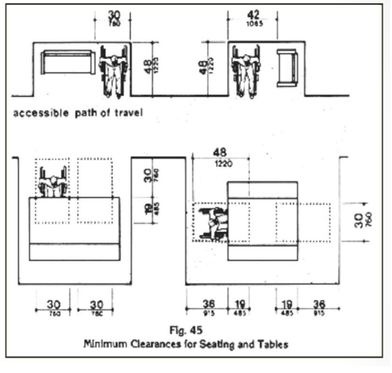
# MEANS OF EGRESS

(Kennon & Harmon, 2018)




PLAN A - Typical Corridor PLAN B - Passing Room

Typically, these corridor are either nonrated or have a one-hour fire rating depending on their location, the occupant load and if the building is sprinklered. Typical width is 44" wide; in some occupancies a wider corridor may be required for the moving of bed. Accessibility clearances: two wheelchairs passing in a extra long corridor 60"

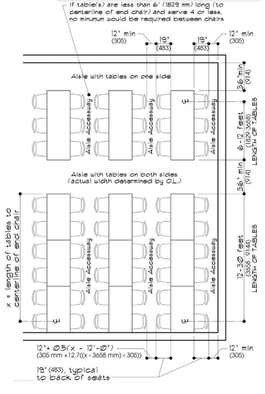


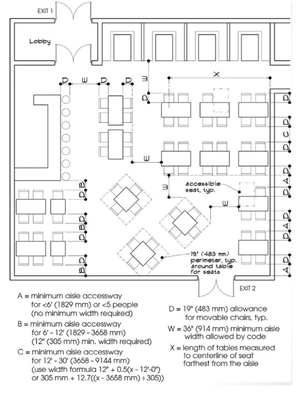

## Exit Access Aisles and Aisle Accessways

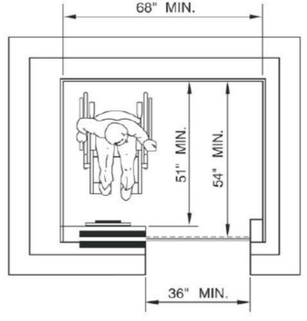
**Aisle:** Similar to exit access corridors, except exit access corridors is enclosed by full-height walls and aisle is pathway created by furniture or equipment

**Aisle accessway:** A short portion of an aisle that leads to another aisle

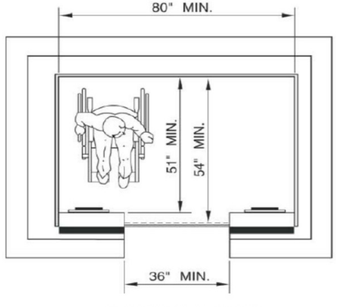
- Sized based on occupant load
- Different req's for aisles and aisle accessways and whether they are created by fixed seats (auditorium) or movable seating/furnishings (restaurant)
- Aisle width: min. 36" (per code and ADA)




(a) SIDE OPENING DOOR




(b) CENTER OPENING DOOR

## Elevators

Elevators are not typically considered a means of egress, especially during an emergency. However, since they are used on daily basis during normal operation, elevators must meet specific accessibility requirements as defined in the codes. The following list includes some of the more common requirements.

- Automatic operation with self-leveling within a certain range
- Power-operated sliding doors that open to a min width
- Door delay and automatic reopening device effective for a specific time period
- Certain size car, depending on the location and size of the sliding door
- Hall call buttons and car controls with specific arrangement, location and height (including Braille and raised lettering)
- Minimum distances from hall call button to elevator door
- Hall lanterns and car position indicators that are visual and audible
- Specific two-way emergency communication system
- Handrail on at least one wall of the car
- Floor surfaces that are firm, stable and slip resistant
- Minimum lighting levels
- Specific door jamb signage at hoistway entrance on each floor
- Emergency exit signs located near elevator doors

Although many of the requirements are consistent between the codes and accessibility publications, there are some variations. The requirements listed above may also vary based on if the elevators are intended for general use, for travel to designated floors only or for a more limited use. In addition, in buildings of a certain height the codes may require at least one of the passenger elevators to be larger for use with an ambulance stretcher.



(Kennon & Harmon, 2018)

MINIMUM NO. OF EXITS

| OL per Story or Area | Min. No. of Exits |
|---|---|
| 1-500 | 2 |
| 500-1000 | 3 |
| Over 1000 | 4 |

**TABLE 1019.2**
**BUILDINGS WITH ONE EXIT**

| OCCUPANCY | MAXIMUM HEIGHT OF BUILDING ABOVE GRADE PLANE | MAXIMUM OCCUPANTS (OR DWELLING UNITS) PER FLOOR AND TRAVEL DISTANCE |
|---|---|---|
| A, B[d], E[e], F, M, U | 1 Story | 49 occupants and 75 feet travel distance |
| H-2, H-3 | 1 Story | 3 occupants and 25 feet travel distance |
| H-4, H-5, I, R | 1 Story | 10 occupants and 75 feet travel distance |
| S[a] | 1 Story | 29 occupants and 100 feet travel distance |
| B[b], F, M, S[a] | 2 Stories | 30 occupants and 75 feet travel distance |
| R-2 | 2 Stories[c] | 4 dwelling units and 50 feet travel distance |

For SI: 1 foot = 304.8 mm.

a. For the required number of exits for open parking structures, see Section 1019.1.1.

b. For the required number of exits for air traffic control towers, see Section 412.1.

c. Buildings classified as Group R-2 equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and provided with emergency escape and rescue openings in accordance with Section 1026 shall have a maximum height of three stories above grade plane.

d. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 with an occupancy in Group B shall have a maximum travel distance of 100 feet.

e. Day care maximum occupant load is 10.

## Exit Requirements

Number of exits: Depends on occupant load of each space
- Most codes require 2 min. (whether they are for an entire building or a space within the building
- Number of exits cannot decrease as a person travels toward the exit discharge

Min. door widths: to provide a clear width of 32", use a 36"door
Max. door widths: 4' for any leaf of door used as part of means of egress
- Example: If need 60" wide exit, then must use 2 separate 36" door (provide 64" of clearance)

Min. exit discharge width: When exit discharge leads from exit enclosure, its width cannot be less than that of exit

Min. corridor and stair widths: 44" typ.; 36" (OL <50); 48" for accessible stairs used as area of refuge
Min. aisle width: 36" (some jurisdictions require 44")

**TABLE 1015.1**
**SPACES WITH ONE MEANS OF EGRESS**

| OCCUPANCY | MAXIMUM OCCUPANT LOAD |
|---|---|
| A, B, E[a], F, M, U | 49 |
| H-1, H-2, H-3 | 3 |
| H-4, H-5, I-1, I-3, I-4, R | 10 |
| S | 29 |

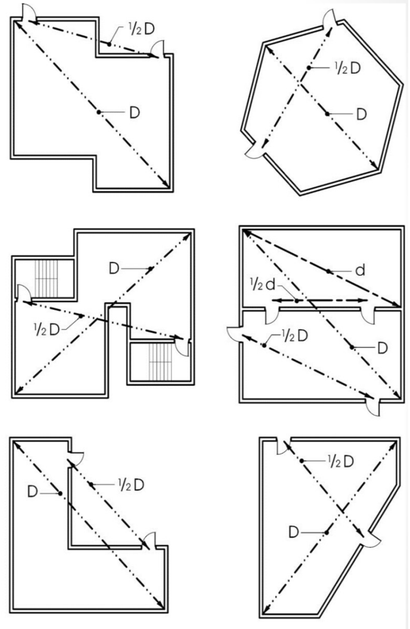
a. Day care maximum occupant load is 10.

**TABLE 1005.1**
**EGRESS WIDTH PER OCCUPANT SERVED**

| OCCUPANCY | WITHOUT SPRINKLER SYSTEM | | WITH SPRINKLER SYSTEM[a] | |
|---|---|---|---|---|
| | Stairways (inches per occupant) | Other egress components (inches per occupant) | Stairways (inches per occupant) | Other egress components (inches per occupant) |
| Occupancies other than those listed below | 0.3 | 0.2 | 0.2 | 0.15 |
| Hazardous: H-1, H-2, H-3 and H-4 | 0.7 | 0.4 | 0.3 | 0.2 |
| Institutional: I-2 | NA | NA | 0.3 | 0.2 |

For SI: 1 inch = 25.4 mm. NA = Not applicable.

a. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.




D = Diagonal or Maximum Distance

½ D = Half of Diagonal or Minimum Distance

NOTE: Some codes allow the minimum distance to be 1/3 the overall

## Arrangement of Exits

Exits to be located as far away from each other as possible so that if one becomes blocked during an emergency the other(s) may still be reached.

Half-diagonal rule:
- When there are 2 or more exits, two of the exits must be located a min. distance equal to at least ½ of the longest diagonal within the space or building. Distance measured as straight line
- If building is sprinklered, some code allow 1/3 diagonal rule

Exits not permitted through kitchens, storerooms, restrooms, closets, or similar functions, from sleeping area through other sleeping areas or bathrooms

## Dead End Corridor

Max. length = 20'
Measured 1' from end of corridor and follows natural path of travel to centerline of corridor that provides choice of two means of egress
- IBC: For sprinklered building in B, E, F, I-1, M, R1, R-2, R-4, S, U occupancies, max. length = 50'

Best to eliminate dead-end corridor altogether but not always possible (e.g., in older, existing buildings)

# MEANS OF EGRESS

(Kennon & Harmon, 2018)

**TABLE 1016.1**
**EXIT ACCESS TRAVEL DISTANCE[a]**

| OCCUPANCY | WITHOUT SPRINKLER SYSTEM (feet) | WITH SPRINKLER SYSTEM (feet) |
|---|---|---|
| A, E, F-1, I-1, M, R, S-1 | 200 | 250[b] |
| B | 200 | 300[c] |
| F-2, S-2, U | 300 | 400[c] |
| H-1 | Not Permitted | 75[c] |
| H-2 | Not Permitted | 100[c] |
| H-3 | Not Permitted | 150[c] |
| H-4 | Not Permitted | 175[c] |
| H-5 | Not Permitted | 200[c] |
| I-2, I-3, I-4 | 150 | 200[c] |

For SI: 1 foot = 304.8 mm.

a. See the following sections for modifications to exit access travel distance requirements:
Section 402: For the distance limitation in malls.
Section 404: For the distance limitation through an atrium space.
Section 1016.2 For increased limitations in Groups F-1 and S-1.
Section 1025.7: For increased limitation in assembly seating.
Section 1025.7: For increased limitation for assembly open-air seating.
Section 1019.2: For buildings with one exit.
Chapter 31: For the limitation in temporary structures.

b. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. See Section 903 for occupancies where automatic sprinkler systems in accordance with Section 903.3.1.2 are permitted.

c. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

## Exit Access Travel Distance

Travel distance: Maximum distance a person should have to travel from any position in a building to the nearest exit

- Not measured in a straight line; instead measured on floor along the centerline of natural path of travel
- Start point: 1' from wall at most remote point of room
- Travel distance: Move in a direct path toward the nearest exit (curve around obstructions with 1' clearance).
- End point: Exterior exit door, Door to an enclosed exit stair, Door to a horizontal exit, Door to an enclosed exit passageway, Door to an enclosed area of refuge, Door to the exit access corridor (for common path of travel)

Travel distance can be lengthened if certain reqs met (e.g., sprinklered bldg)

## Travel Distance Factors

- Estimated number, age, and physical condition of building occupants and rate at with they can be expected to move
- Type of number or expected obstructions (e.g., display cases, seating and heavy machinery that must be negotiated)
- Estimated number of people in any room or space and distance from the farthest point in that room to door
- Amount and nature of combustibles expected in a particular occupancy
- Rapidity with which a fire might spread (depends on type of construction, materials used, degree of complementation, and presence or absence of automatic fire detection and extinguishing systems)

# MEANS OF EGRESS

(Kennon & Harmon, 2018)

## Passive Systems

Focus on prohibiting and containing fires. They are sometimes referred to as prevention systems. These elements are considered passive because, once in place, nothing else has to occur for them to be part of the control of a fire.

Fire + Smoke Barriers + Partitions (walls)
Horizontal Assemblies (floor, ceilings)
Opening Protectives (windows, doors)
Through Penetration Protectives (firestops, draftstops, dampers)
Finishes + Furniture (wall coverings, upholstered pieces, finish floor materials)

## Active Systems

These systems are considered active because they have to be activated in order to work against the fire.

Detection Systems (detectors, fire alarms, communication systems)
Extinguishing + Suppression Systems (fire extinguishers, sprinkler systems, fire hoses)
Emergency Lighting

## Exiting Systems

Exiting systems are the elements of a space or building that assist and direct occupants to a place of safety.

Means of Egress (corridors, exits, stairs, ramps)
Exit Communication Systems (signage, audible + visual communication)

# FIRE PROTECTION

(National Fire Protection Association, 2018)

# Interior Finish, Contents + Furnishings

1 General.

1.1 Application. The interior finish, contents, and furni s provisions set forth in this chapter shall apply to n nstruction and existing buildings.

1.2 Automatic Sprinkler Systems. Where another provisi this chapter requires an automatic sprinkler system, omatic sprinkler system shall be installed in accordance w subparts of 9.7.1.1 as permitted by the applicable oc ncy chapter.

1.3 Definitions.

1.3.1 General. For definitions see Chapter 3 Definitions

1.3.2 Special Definitions. A list of special terms used in t pter follows:

**Contents and Furnishings.** See 3.3.150.
**Flashover.** See 3.3.116.
**Interior Finish.** See 3.3.95.2.
**Interior Ceiling Finish.** See 3.3.95.1.
**Interior Floor Finish.** See 3.3.95.3.
**Interior Wall Finish.** See 3.3.95.4.

2* Interior Finish.

2.1* General.

2.1.1 Classification of interior finish materials shall be ordance with tests made under conditions simulating act allations, provided that the authority having jurisdiction mitted to establish the classification of any material ch classification by a standard test is not available.

.1.2 Fixed or movable walls and partitions, paneling, , and crash pads applied structurally or for decorat stical correction, surface insulation, or other purp be considered interior finish and shall not be consid rations or furnishings.

.1.3 Lockers shall be considered interior finish.

.1.4 Washroom water closet partitions shall be consid ior finish.

.1.5 Fire-retardant coatings shall be in accordance .6.

.2* Use of Interior Finishes.

.2.1 Requirements for interior wall and ceiling finish s y as follows:

Where specified elsewhere in this *Code* for specific o pancies *(see Chapter 7 and Chapters 11 through 43)*
As specified in 10.2.3 through 10.2.6.

.2.2* Interior floor finish shall comply with 10.2.7 un of the following conditions:

Where floor finish requirements are specified elsewl in the *Code*
Where the fire performance of the floor finish canno demonstrated to be equivalent to floor finishes with a ical radiant flux of at least 0.1 W/cm$^2$

.3* Interior Wall or Ceiling Finish Testing and Classi

Where interior wall or ceiling finish is required e in this *Code* to be classified for fire performance ke development, it shall be classified in accordance .3.1 or 10.2.3.3, except as indicated in sections 10.2.4.

2.3.1 Interior Wall and Ceiling Finish Materials Testec ordance with NFPA 286.

2.3.1.1 Interior wall and ceiling finish materials shall sified in accordance with NFPA 286 and comply v 2.3.2.

2.3.1.2 Materials tested in accordance with 10.2.3.1.1 : nplying with 10.2.3.2 shall be considered also to comply v requirements of a Class A, Class B, or Class C in accorda h 10.2.3.3.

2.3.2 Acceptance Criteria for NFPA 286. The inte sh shall comply with the following:

During the 40 kW exposure, flames shall not spreac the ceiling.
The flame shall not spread to the outer extremity of sample on any wall or ceiling.
Flashover, as described in NFPA 286, shall not occur.
The peak heat release rate throughout the test shall exceed 800 kW.
For new installations, the total smoke released throu out the test shall not exceed 1000 m$^2$.

2.3.3* Interior Wall and Ceiling Finish Materials Testec ordance with ASTM E84 or ANSI/UL 723. Interior v l ceiling finish materials shall be classified in accorda h ASTM E84, *Standard Test Method for Surface Burning Cha stics of Building Materials*, or ANSI/UL 723, *Standard thod for Surface Burning Characteristics of Building Mater* ept as indicated in 10.2.3.4 and 10.2.3.5, and shall

aped in the following classes in accordance with their fl ad and smoke developed indexes.

Class A: Flame spread index 0–25; smoke develc index 0–450.
Class B: Flame spread index 26–75; smoke develc index 0–450.
Class C: Flame spread index 76–200; smoke develc index 0–450.

2.3.3.1 Existing interior finish shall be exempt from ke developed index criteria of 10.2.3.3.

2.3.3.2 The classification of interior finish specifiec 2.3.3 shall be that of the basic material used by itself c mbination with other materials.

2.3.3.3 Wherever the use of Class C interior wall and finish is required, Class A or Class B shall be permitted. re Class B interior wall and ceiling finish is requi s A shall be permitted.

2.3.4 Materials complying with the requirements 2.3.1 shall not be required to be tested in accordance 2.3.3.

2.3.5 Materials described in 10.2.4 shall be tested as de in the corresponding sections.

2.3.4* Interior Wall and Ceiling Finish Materials with Special equirements. The materials indicated in 10.2.4.1 through 0.2.4.16 shall be tested as indicated in the corresponding ections.

2.4.1 Thickness Exemption. The provisions of 10.2.1.1 hall not apply to materials having a total thickness of less than $_{32}$ in. (0.9 mm) that are applied directly to the surface of walls nd ceilings where both of the following conditions are met:

1) The wall or ceiling surface is a noncombustible or limited combustible material.
2) The materials applied meet the requirements of Class A interior wall or ceiling finish when tested in accordance with 10.2.3, using fiber cement board as the substrate material.

2.4.1.1 If a material having a total thickness of less than $_{32}$ in. (0.9 mm) is applied to a surface that is not noncombusti le or not limited-combustible, the provisions of 10.2.3 shall pply.

2.4.1.2 Approved existing installations of materials applied irectly to the surface of walls and ceilings in a total thickness f less than $_{32}$ in. (0.9 mm) shall be permitted to remain in se, and the provisions of 10.2.3 shall not apply.

2.4.2* Exposed Portions of Structural Members. In other than new interior exit stairways, new interior exit ramps, and ew exit passageways, exposed portions of structural members complying with the requirements for Type IV (2HH) construc on in accordance with NFPA 220 or with the building code hall be exempt from testing and classification in accordance ith 10.2.3.

2.4.3 Cellular or Foamed Plastic.

2.4.3.1 Cellular or foamed plastic materials shall not be

2.4.3.2 The requirements of 10.2.4.3 shall apply both to posed foamed plastics and to foamed plastics used in njunction with a textile or vinyl facing or cover.

2.4.3.3* Cellular or foamed plastic materials shall be mitted where subjected to large-scale fire tests that substan te their combustible and smoke release characteristics fo e use intended under actual fire conditions.

2.4.3.3.1 One of the following fire tests shall be used foo essing the combustibility of cellular or foamed plastic mate ls as interior finish:

) NFPA 286, *Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fir Growth*, with the acceptance criteria of 10.2.3.2
) ANSI/UL 1715, *Standard for Fire Test of Interior Finish Mate rial* (including smoke measurements, with total smoke release not to exceed 1000 m$^2$)
) ANSI/UL 1040, *Standard for Fire Test of Insulated Wal Construction*
) ANSI/FM Approval 4880, *Approval Standard for Class , Rating of Insulated Wall or Wall and Roof/Ceiling Panels, Int rior Finish Materials or Coatings, and Exterior Wall Systems*

2.4.3.3.2* The tests shall be performed on a finishec amed plastic assembly related to the actual end-use configu tion, including any cover or facing, and at the maximum ickness intended for use.

2.4.3.4 Cellular or foamed plastic shall be permitted foo m not in excess of 10 percent of the specific wall or ceiling ea to which it is applied, provided that it is not less thar lb/ft$^3$ (320 kg/m$^3$) in density, is limited to ½ in. (13 mm) ir ickness and 4 in. (100 mm) in width, and complies with the quirements for Class A or Class B interior wall and ceiling nish as described in 10.2.3.3; however, the smoke developec dex shall not be limited.

2.4.4* Textile Wall Coverings. Where used as interior wal nish materials, textile materials shall be tested in the manner tended for use, using the product mounting system, includ g adhesive, and shall comply with the requirements of either 29.1, 10.2.4.1, or 10.2.4.3.

2.4.4.2* The interior finish shall comply with all of swing when tested using method B of the test protocol A 265:

During the 40 kW exposure, flames shall not spread the ceiling.
The flame shall not spread to the outer extremities of samples on the 8 ft × 12 ft (2440 mm × 3660 mm) walls.
Flashover, as described in NFPA 265, shall not occur.
For new installations, the total smoke released throu out the test shall not exceed 1000 m$^2$.

2.4.4.3 Textile materials meeting the requirements s A when tested in accordance with ASTM E84, *Stand Method for Surface Burning Characteristics of Building Materi* NSI/UL 723, *Standard Test Method for Surface Burning C istics of Building Materials*, using the specimen preparat mounting method of ASTM E2404, *Standard Practice imen Preparation and Mounting of Textile, Paper or Polym luding Vinyl) and Wood Wall or Ceiling Coverings, Facings ers, to Assess Surface Burning Characteristics*, shall be permi as follows:

On the walls of rooms or areas protected by an approv automatic sprinkler system.
On partitions that do not exceed three-quarters of t floor-to-ceiling height or do not exceed 8 ft (2440 mm) height, whichever is less.
On the lower 48 in. (1220 mm) above the finished flc on ceiling-height walls and ceiling-height partitions.
Previously approved existing installations of textile ma rial meeting the requirements of Class A when tested accordance with ASTM E84, *Standard Test Method Surface Burning Characteristics of Building Materials* ANSI/UL 723, *Standard Test Method for Surface Burn Characteristics of Building Materials*, shall be permitted be continued to be used.

4.5* Expanded Vinyl Wall Coverings. Where used as in wall finish materials, expanded vinyl wall coverings shall d in the manner intended for use, using the produ nting system, including adhesive, and shall comply w requirements of either 10.2.3.1, 10.2.4.4.1, or 10.2.4.4.3.

4.6 Textile Ceiling Coverings. Where used as inter ng finish materials, textile materials shall be tested in t ner intended for use, using the product mounting syste ding adhesive, and shall meet one of the following:

Comply with the requirements of 10.2.3.1
Meet the requirements of Class A when tested in acco ance with ASTM E84, *Standard Test Method for Surface Bu ning Characteristics of Building Materials* or ANSI/UL 72 *Standard Test Method for Surface Burning Characteristics Building Materials* using the specimen preparation a mounting method of ASTM E2404, *Standard Practice Specimen Preparation and Mounting of Textile, Paper or P meric (Including Vinyl) and Wood Wall or Ceiling Coverin Facings and Veneers, to Assess Surface Burning Characteristi* and used on the ceilings of rooms or areas protected an approved automatic sprinkler system

10.2.4.7 Expanded Vinyl Ceiling Coverings. Where used as interior ceiling finish materials, expanded vinyl materials shall be tested in the manner intended for use, using the product mounting system, including adhesive, and shall meet one of the following:

(1) Comply with the requirements of 10.2.3.1
(2) Meet the requirements of Class A when tested in accordance with ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials* or ANSI/UL 723, *Standard Test Method for Surface Burning Characteristics of Building Materials*, using the specimen preparation and mounting method of ASTM E2404, *Standard Practice for Specimen Preparation and Mounting of Textile, Paper or Polymeric (Including Vinyl) and Wood Wall or Ceiling Coverings, Facings and Veneers, to Assess Surface Burning Characteristics*, and used on the ceilings of rooms or areas protected by an approved automatic sprinkler system

10.2.4.8 Lockers.

4.12 Metal Ceiling and Wall Panels.

4.12.1 Listed factory finished metal ceiling and ls meeting the requirements of Class A in accordance 3, shall be permitted to be finished with one additi ication of paint.

4.12.2 Such painted panels shall be permitted for us where Class A interior finishes are required. The t thickness shall not exceed $_{32}$ in. (0.9 mm).

4.13 Laminated Products Factory Produced with a W trate.

4.13.1 Laminated products factory produced with a w rate shall be tested in the manner intended for use comply with the requirements of 10.2.3.1 or 10.2.3.3.

4.13.2 If the materials are tested in accordance M E84, *Standard Test Method for Surface Burning Charac f Building Materials*, or ANSI/UL 723, *Standard for Te ce Burning Characteristics of Building Materials*, speci

eparation and mounting shall be in accordance wit STM E2579, *Standard Practice for Specimen Preparation an ounting of Wood Products to Assess Surface Burning Characteristics* ing the product-mounting system, including adhesive, o tual use.

4.14 Facings or Wood Veneers Intended to be Applied o te over a Wood Substrate.

4.14.1 Facings or veneers intended to be applied on sit er a wood substrate shall be tested in the manner intender t use and shall comply with the requirements of 10.2.3.1 o 4.2.3.3.

4.14.2 If the materials are tested in accordance wit FPA 286 they shall use the product-mounting system, includ g adhesive, described in Section 5.8.9 of NFPA 286.

4.14.3 If the materials are tested in accordance wit STM E84, *Standard Test method for Surface Burning Characteristic Building Materials*, or ANSI/UL 725, *Standard for Test fo rface Burning Characteristics of Building Materials*, specimen eparation and mounting shall be in accordance wit STM E2404, *Standard Practice for Specimen Preparation an ounting of Textile, Paper or Polymeric (Including Vinyl) and Woo all or Ceiling Coverings, Facings and Veneers, to Assess Surface urning Characteristics.*

4.14.15* Light-Transmitting Plastics. Light-transmitting astics used as interior wall and ceiling finish shall be permit d based on large-scale fire tests per 10.2.4.3.3.1, whicl bstantiate the combustibility characteristics of the plastics fo e use intended under actual fire conditions.

4.14.16 Decorations and Furnishings. Decorations anc rnishings that do not meet the definition of interior finish, a fined in 3.3.95.2, shall be regulated by the provisions o ction 10.3.

10.2.5 Trim and Incidental Finish.

10.2.5.1 General. Interior wall and ceiling trim and incidental finish, other than wall base in accordance with 10.2.3.2 and bulletin boards, posters, and paper in accordance with 10.2.3.5, not in excess of 10 percent of the specific wall and ceiling areas of any room or space to which it is applied shall be permitted to be Class C materials in occupancies where interior wall and ceiling finish of Class A or Class B is required.

10.2.5.2 Wall Base. Interior floor trim material used at the junction of the wall and the floor to provide a functional or decorative border, and not exceeding 6 in. (150 mm) in height, shall meet the requirements for interior wall finish for its location or the requirements for Class II interior floor finish as described in 10.2.7.4 using the test described in 10.2.7.3.

10.2.5.2.1 If a Class I floor finish is required, the interior floor trim shall be Class I.

**TABLE 601**
**FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)**

| BUILDING ELEMENT | TYPE I | | TYPE II | | TYPE III | | TYPE IV | TYPE V | |
|---|---|---|---|---|---|---|---|---|---|
| | A | B | A | B | A | B | HT | A | B |
| Primary structural frame[f] (see Section 202) | 3[g] | 2[g] | 1 | 0 | 1 | 0 | HT | 1 | 0 |
| Bearing walls | | | | | | | | | |
| Exterior[e, f] | 3 | 2 | 1 | 0 | 2 | 2 | 2 | 1 | 0 |
| Interior | 3[g] | 2[g] | 1 | 0 | 1 | 0 | 1/HT | 1 | 0 |
| Nonbearing walls and partitions Exterior | See Table 602 | | | | | | | | |
| Nonbearing walls and partitions Interior[d] | 0 | 0 | 0 | 0 | 0 | 0 | See Section 602.4.6 | 0 | 0 |
| Floor construction and associated secondary members (see Section 202) | 2 | 2 | 1 | 0 | 1 | 0 | HT | 1 | 0 |
| Roof construction and associated secondary members (see Section 202) | 1½[b] | 1[bc] | 1[bc] | 0[c] | 1[bc] | 0 | HT | 1[bc] | 0 |

For SI: 1 foot = 304.8 mm.

a. Roof supports: Fire-resistance ratings of primary structural frame and bearing walls are permitted to be reduced by 1 hour where supporting a roof only.
b. Except in Group F-1, H, M and S-1 occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.
c. In all occupancies, heavy timber shall be allowed where a 1-hour or less fire-resistance rating is required.
d. Not less than the fire-resistance rating required by other sections of this code.
e. Not less than the fire-resistance rating based on fire separation distance (see Table 602).
f. Not less than the fire-resistance rating as referenced in Section 704.10.

# FIRE PROTECTION

(National Fire Protection Association, 2018)

# NFPA 101: New Assembly Occupancies

**.7.2 Waiting Spaces.** In theaters and other assembly o cies where persons are admitted to the building at ti n seats are not available, or when the permitted occup l has been reached based on 12.1.7.1 and persons wed to wait in a lobby or similar space until seats or spac lable, all of the following requirements shall apply:

Such use of a lobby or similar space shall not encro upon the required clear width of exits.
The waiting spaces shall be restricted to areas other t the required means of egress.
Exits shall be provided for the waiting spaces on the b of one person for each 3 ft² (0.28 m²) of waiting sp area.
Exits for waiting spaces shall be in addition to the e specified for the main auditorium area and shall confo in construction and arrangement to the general rules exits given in this chapter.

**.7.3 Life Safety Evaluation.** Where the occupant loa assembly occupancy exceeds 6000, a life safety evalua ll be performed in accordance with 12.4.1.

**.7.4 Outdoor Facilities.** In outdoor facilities, wh roved by the authority having jurisdiction, the numbe cupants who are each provided with not less than 15 i m²) of lawn surface shall be permitted to be exclu n the maximum occupant load of 6000 of 12.1.7.3 in de ining the need for a life safety evaluation.

**.2 Means of Egress Requirements.**

**.2.1 General.**

**.2.1.1** All means of egress shall be in accordance with Chap 7 and this chapter.

**.2.1.2** Where bathtubs, bathtub-shower combinations, owers are present, grab bars shall be provided in accordanc th the provisions of 24.2.8.

**.2.2 Means of Egress Components.**

**.2.2.1 Components Permitted.** Components of means ress shall be limited to the types described in 12.2.2. rough 12.2.2.12.

**.2.2.2 Doors.**

**.2.2.2.1** Doors complying with 7.2.1 shall be permitted.

**.2.2.2.2** Assembly occupancies with occupant loads of 30 less in mall concourses(*see 36.4.4.4.2(4)*) shall be permitte have horizontal or vertical security grilles or doors compl g with 7.2.1.4.1(3) on the main entrance/exits.

**.2.2.2.3** Any door in a required means of egress from a ea having an occupant load of 100 or more persons shall b rmitted to be provided with a latch or lock only if the latc lock is panic hardware or fire exit hardware complying wit 2.1.7, unless otherwise permitted by one of the following:

) This requirement shall not apply to delayed-egress electr cal locking systems as permitted in 12.2.2.2.5.
) This requirement shall not apply to sensor-release of ele trical locking systems as permitted in 12.2.2.2.6.

**.2.2.2.4** Locking devices complying with 7.2.1.5.5 shall b rmitted to be used on a single door or a single pair of door both of the following conditions apply:

The door or pair of doors serve as the main exit and assembly occupancy has an occupant load not gre than 500.
Any latching devices on such a door(s) from an asser occupancy having an occupant load of 100 or more released by panic hardware or fire exit hardware.

**2.2.5** Delayed-egress locks complying with 7.2.1.6.1 rmitted on doors other than main entrance/exit door

**2.2.6** Doors in the means of egress shall be permitte quipped with an approved access control system compl 7.2.1.6.2, and such doors shall not be locked from s side when the assembly occupancy is occupied. *.1.3.)*

**2.2.7** Elevator lobby exit access door locking in acc with 7.2.1.6.3 shall be permitted.

**2.2.8** Revolving doors complying with the requirem 2.1.10 shall be permitted.

**2.2.9** The provisions of 7.2.1.11.1.1 to permit turns e revolving doors are permitted shall not apply.

**2.2.10** No turnstiles or other devices that restrict ement of persons shall be installed in any assembly o y in such a manner as to interfere with required mean ss facilities.

**2.3 Stairs.**

**2.3.1 General.** Stairs complying with 7.2.2 shall itted, unless one of the following criteria applies:

Stairs serving seating that is designed to be repositio shall not be required to comply with 7.2.2.3.1. This requirement shall not apply to stages and platfo as permitted by 12.4.6.1.2.
The stairs connecting only a stage or platform and immediately adjacent assembly seating shall be permi to have a handrail in the center only or on one side o
The stairs connecting only a stage or platform and immediately adjacent assembly seating shall be permi to omit the guards required by 7.1.8 where both of following criteria are met:

(a) The guard would restrict audience sight lines to stage or platform.
(b) The height between any part of the stair and adjacent floor is not more than 42 in. (1065 mm

Stairs connecting aisle stairs with cross-aisles, concou or other aisle stairs and landings in compliance

**2.3.2 Catwalk, Gallery, and Gridiron Stairs.**

**2.3.2.1** Noncombustible grated stair treads and lan s shall be permitted in means of egress from lighting s catwalks, galleries, and gridirons.

**2.3.2.2** Spiral stairs complying with 7.2.2.2.3 shall itted in means of egress from lighting and access catw ries, and gridirons.

**2.4 Smokeproof Enclosures.** Smokeproof enclos plying with 7.2.3 shall be permitted.

**2.5 Horizontal Exits.** Horizontal exits complying shall be permitted.

**2.2.6 Ramps.** Ramps complying with 7.2.5 shall be perm ed, and the following alternatives shall also apply:

1) Ramps not part of an accessible means of egress and se ing only stages or nonpublic areas shall be permitted have a slope not steeper than 1 in 8.
2) Ramped aisles not part of an accessible means of egr shall be permitted to have a slope not steeper than 1 in

**2.2.7 Exit Passageways.** Exit passageways complying wi 7.2.6 shall be permitted.

**2.2.8 Reserved.**

**2.2.9 Reserved.**

**2.2.10 Fire Escape Ladders.**

**2.2.10.1** Fire escape ladders complying with 7.2.9 shall ermitted.

**2.2.10.2** For ladders serving catwalks, the three-person li ation in 7.2.9.1(3) shall be permitted to be increased to t ersons.

**2.2.11 Alternating Tread Devices.** Alternating tread devic omplying with 7.2.11 shall be permitted.

**2.2.12 Areas of Refuge.** Areas of refuge complying wi 7.2.12 shall be permitted.

**2.2.3 Capacity of Means of Egress.**

**2.2.3.1 General.** The capacity of means of egress shall be ccordance with one of the following:

1) Section 7.3 for other than theater-type seating or smol protected assembly seating
2) 12.2.3.2 for rooms with theater-type seating or simil seating arranged in rows
3) 12.4.2 for smoke-protected assembly seating

**12.2.3.3 Width Modifications.** The minimum clear widths shown in Table 12.2.3.2 shall be modified in accordance with all of the following:

(1) If risers exceed 7 in. in height, the stair width in Table 12.2.3.2 shall be multiplied by factor *A*, where *A* equals the following:

$$A = 1 + \frac{\text{riser height} - 7}{5} \qquad [12.2.3.3a]$$

If risers exceed 178 mm in height, the stair width Table 12.2.3.2 shall be multiplied by factor *A*, whe equals the following:

$$A = 1 + \frac{\text{riser height} - 178}{125} \qquad [12.2.3$$

Stairs not having a handrail within a 30 in. (760 horizontal distance shall be 25 percent wider than or wise calculated; that is, their width shall be multiplie factor *B*, where *B* equals the following:

$$B = 1.25 \qquad [12.2.3$$

Ramps steeper than 1 in 10 slope where used in as shall have their width increased by 10 percent; th their width shall be multiplied by factor *C*, where *C* e the following:

$$C = 1.10 \qquad [12.2.3$$

**.3.4 Lighting and Access Catwalks.** The requiremen .3.2 and 12.2.3.3 shall not apply to lighting and ac alks as permitted by 12.4.6.9.

**.3.6 Main Entrance/Exit.**

**.3.6.1** Every assembly occupancy shall be provided wit entrance/exit.

**.3.6.2** The main entrance/exit width shall be as follows:

The main entrance/exit shall be of a width that acco modates two-thirds of the total occupant load in following assembly occupancies:

(a) Dance halls
(b) Discotheques
(c) Nightclubs
(d) Assembly occupancies with festival seating

In assembly occupancies, other than those listed 12.2.3.6.2(1), the main entrance/exit shall be of a wi that accommodates one-half of the total occupant load.

**.3.6.3** The main entrance/exit shall be at the level of e arge or shall connect to a stairway or ramp leading t t.

**.3.6.4** Access to the main entrance/exit shall be as follo

Each level of the assembly occupancy shall have access the main entrance/exit, and such access shall have capacity to accommodate two-thirds of the occupant l of such levels in the following assembly occupancies:

(a) Dance halls
(b) Discotheques
(c) Nightclubs
(d) Assembly occupancies with festival seating

In assembly occupancies, other than those listed 12.2.3.6.4(1), each level of the assembly occupancy sl have access to the main entrance/exit, and such acc shall have the capacity to accommodate one-half of t occupant load of such levels.

**12.2.3.6.5** Where the main entrance/exit from an assemb occupancy is through a lobby or foyer, the aggregate capacity all exits from the lobby or foyer shall be permitted to provi the required capacity of the main entrance/exit, regardless whether all such exits serve as entrances to the building.

**12.2.3.6.6*** In assembly occupancies where there is no we defined main entrance/exit, exits shall be permitted to b distributed around the perimeter of the building, provided th the total exit width furnishes not less than 100 percent of th width needed to accommodate the permitted occupant load.

**12.2.3.7 Other Exits.** Each level of an assembly occupanc shall have access to the main entrance/exit and shall be pro ded with additional exits of a width to accommodate not le than one-half of the total occupant load served by that level.

**12.2.3.7.1** Additional exits shall discharge in accordance wit 12.2.7.

**12.2.3.7.2** Additional exits shall be located as far apart as pra ticable and as far from the main entrance/exit as practicable.

**12.2.3.7.3** Additional exits shall be accessible from a cross ais or a side aisle.

**12.2.3.7.4** In assembly occupancies where there is no we defined main entrance/exit, exits shall be permitted to b distributed around the perimeter of the building, provided th the total exit width furnishes not less than 100 percent of th width required to accommodate the permitted occupant load.

**12.2.3.8 Minimum Corridor Width.** The width of any ex access corridor serving 50 or more persons shall be not le than 44 in. (1120 mm).

**12.2.4* Number of Means of Egress.**

**12.2.4.1** The number of means of egress shall be in acc ance with Section 7.4, other than exits for fenced outd assembly occupancies in accordance with 12.2.4.4.

**12.2.4.2 Reserved.**

**12.2.4.3 Reserved.**

**12.2.4.4** A fenced outdoor assembly occupancy shall have less than two remote means of egress from the enclosure accordance with 7.5.1.3, unless otherwise required by one the following:

(1) If more than 6000 persons are to be served by such me of egress, there shall be not less than three means egress.
(2) If more than 9000 persons are to be served by such me of egress, there shall be not less than four means egress.

**12.2.4.5** Balconies or mezzanines having an occupant load exceeding 50 shall be permitted to be served by a single me of egress, and such means of egress shall be permitted to b to the floor below.

**12.2.4.6** Balconies or mezzanines having an occupant l exceeding 50, but not exceeding 100, shall have not less t two remote means of egress, but both such means of egr shall be permitted to lead to the floor below.

**12.2.4.7** Balconies or mezzanines having an occupant l ceeding 100 shall have means of egress as described in 7.4

**12.2.4.8** A second means of egress shall not be required fr ting and access catwalks, galleries, and gridirons wher ns of escape to a floor or a roof is provided. Ladders, al ng tread devices, or spiral stairs shall be permitted in su ns of escape.

**12.5 Arrangement of Means of Egress.**

**12.5.1 General.**

**12.5.1.1** Means of egress shall be arranged in accorda Section 7.5.

**12.5.1.2** A common path of travel shall be permitted for 20 ft (6100 mm) from any point where the common p es any number of occupants, and for the first 75 ft (23 n any point where the common path serves not more t occupants.

**12.5.1.3** Dead-end corridors shall not exceed 20 00 mm).

**12.5.2 Access Through Hazardous Areas.** Means of egr n a room or space for assembly purposes shall not mitted through kitchens, storerooms, restrooms, clos forms, stages, projection rooms, or hazardous areas ribed in 12.3.2.

**12.5.3 Auditorium and Arena Floors.** Where the floor a uditoriums and arenas is used for assembly occupancy a /events, not less than 50 percent of the occupant load sl e means of egress provided without passing through a fixed seating areas.

**12.5.4 General Requirements for Access and Egress Rou in Assembly Areas.**

**12.5.4.1** Festival seating, as defined in 3.3.248.1, shall hibited within a building, unless otherwise permitted of the following:

Festival seating shall be permitted in assembly occup cies where the festival seating occupant load is 250 or le
Festival seating shall be permitted in assembly occup cies where the festival seating occupant load exceeds 2 provided that an approved life safety evaluation has be performed. *(See 12.4.1.)*
Festival seating shall be permitted in assembly occup cies without dance halls, discotheques, and nightclu where the festival seating occupant load is 1000 or less.

**12.5.4.2*** Access and egress routes shall be maintained any individual is able to move without undue hindran personal initiative and at any time, from an occupied pa to the exits.

**12.5.4.3*** Access and egress routes shall be maintained crowd management, security, and emergency medi onnel are able to reach any individual at any time, with e hindrance.

**12.5.4.4*** The width of aisle accessways and aisles sh ide sufficient egress capacity for the number of perso mmodated by the catchment area served by the ai ssway or aisle in accordance with 12.2.3.2, or for smo ected assembly seating in accordance with 12.4.2.

**12.5.4.5** Where aisle accessways or aisles converge to form a ngle path of egress travel, the required egress capacity of that th shall be not less than the combined required capacity of e converging aisle accessways and aisles.

**12.5.4.6** Those portions of aisle accessways and aisles where ress is possible in either of two directions shall be uniform in quired width, unless otherwise permitted by 12.2.5.4.7.

**12.5.4.7** The requirement of 12.2.5.4.6 shall not apply to ose portions of aisle accessways where the required width, not cluding the seat space described by 12.2.5.7.3, does not ceed 12 in. (305 mm).

**12.5.4.8** In the case of side boundaries for aisle accessways r aisles, other than those for nonfixed seating at tables, the ear width shall be measured to boundary elements such as alls, guardrails, handrails, edges of seating, tables, and side lges of treads, and said measurement shall be made horizon- lly to the vertical projection of the elements, resulting in the allest width measured perpendicularly to the line of travel.

**12.5.5* Aisle Accessways Serving Seating Not at Tables.**

**12.5.5.1*** The required clear width of aisle accessways tween rows of seating shall be determined as follows:

1) Horizontal measurements shall be made, between vertical planes, from the back of one seat to the front of the most forward projection of the seat immediately behind it.
2) Where the entire row consists of automatic- or self-rising seats that comply with ASTM F851, *Standard Test Method for Self-Rising Seat Mechanisms*, the measurement shall be permitted to be made with the seats in the up position.

**12.5.5.2** The aisle accessway between rows of seating shall ve a clear width of not less than 12 in. (305 mm), and this inimum shall be increased as a function of row length in ccordance with 12.2.5.5.4, 12.2.5.5.5, and 12.2.5.5.6.

**12.5.5.3** If used by not more than four persons, no minimum clear width shall be required for the portion of an aisle ccessway having a length not exceeding 6 ft (1830 mm), measred from the center of the seat farthest from the aisle.

**12.5.5.2** The aisle accessway between rows of seating sl a clear width of not less than 12 in. (305 mm), and t mum shall be increased as a function of row length rdance with 12.2.5.5.4, 12.2.5.5.5, and 12.2.5.5.6.

**12.5.5.3** If used by not more than four persons, no m a clear width shall be required for the portion of an a sway having a length not exceeding 6 ft (1830 mm), m l from the center of the seat farthest from the aisle.

**12.5.5.4** The increase in aisle accessway width required 5.5.2 shall not apply to grandstands, bleachers, and fo and telescopic seating, provided that the number of se ven the farthest seat and an aisle does not exceed t m in Table 12.4.9.2.5.

**12.5.5.5*** Rows of seating served by aisles or doorways ends shall not exceed 100 seats per row.

**12.5.5.5.1** The 12 in. (305 mm) minimum clear width accessway specified in 12.2.5.5.2 shall be increased n. (7.6 mm) for every seat over a total of 14 but shall equired to exceed 22 in. (560 mm).

**12.5.5.5.2** The requirement of 12.2.5.5.5.1 shall not appl ke-protected assembly seating as permitted by 12.4.2.7.

**12.5.5.6** Rows of seating served by an aisle or doorway at e only shall have a path of travel not exceeding 30 ft (9.1 ngth from any seat to an aisle.

**12.5.6.1** The 12 in. (305 mm) minimum clear width accessway specified in 12.2.5.5.2 shall be increased n. (15 mm) for every seat over a total of seven.

**12.5.6.2** The requirements of 12.2.5.5.5 and 12.2.5. not apply to smoke-protected assembly seating as pe y 12.4.2.8 and 12.4.2.9.

**12.5.7** Rows of seating using tablet-arm chairs shal itted only if the clear width of aisle accessways com the requirements of 12.2.5.5 when measured under o ollowing conditions:

The clear width is measured with the tablet arm in usable position.
The clear width is measured with the tablet arm in stored position where the tablet arm automati returns to the stored position when raised manually vertical position in one motion and falls to the st position by force of gravity.

**12.5.5.8** The depth of seat boards shall be not less than mm) where the same level is not used for both seat bo footboards.

**12.5.5.9** Footboards, independent of seats, shall be prov at there is no horizontal opening that allows the passag n. (13 mm) diameter sphere.

**12.5.6 Aisles Serving Seating Not at Tables.**

**12.5.6.1 General.**

**12.5.6.1.1** Aisles shall be provided so that the numbe served by the nearest aisle is in accordance with 12.2. ugh 12.2.5.5.5, unless otherwise permitted by 12.2.5.6.1

**12.5.6.1.2** Aisles shall not be required in bleachers, provi all of the following conditions are met:

Egress from the front row shall not be obstructed b rail, a guard, or other obstruction.
The row spacing shall be 28 in. (710 mm) or less.
The rise per row, including the first row, shall be 6 (150 mm) or less.
The number of rows shall not exceed 16.
The seat spaces shall not be physically defined.
Seat boards that are also used as stepping surfaces descent shall provide a walking surface with a width less than 12 in. (305 mm), and, where a depressed f board exists, the gap between seat boards of adjac rows shall not exceed 12 in. (305 mm), measured h zontally.
The leading edges of seat boards used as stepping su ces shall be provided with a contrasting marking strip that the location of the leading edge is readily appar particularly where viewed in descent, and the follo shall also apply:

(a) The marking stripe shall be not less than 1 (25 mm) wide and shall not exceed 2 in. (51 m in width.
(b) The marking stripe shall not be required wh bleacher surfaces and environmental conditi under all conditions of use, are such that the l tion of each leading edge is readily apparent, pa ularly when viewed in descent.

**12.5.6.2 Dead-End Aisles.** Dead-end aisles shall not exc (6100 mm) in length, unless otherwise permitted by e following:

A dead-end aisle shall be permitted to exceed 2 (6100 mm) in length where seats served by the dead- aisle are not more than 24 seats from another aisle, m ured along a row of seats having a clear width of not than 12 in. (305 mm) plus 0.6 in. (15 mm) for each a tional seat over a total of 7 in the row.
A 16-row, dead-end aisle shall be permitted in folding telescopic seating and grandstands.
Aisle termination in accordance with 12.4.2.11 for smo protected assembly seating shall be permitted.

**12.5.6.3* Minimum Aisle Width.** The minimum clear w les shall be sufficient to provide egress capacity in acc with 12.2.3.1 but shall be not less than the following:

48 in. (1220 mm) for stairs having seating on each s or 36 in. (915 mm) where the aisle does not serve n than 50 seats
36 in. (915 mm) for stairs having seating on only one 23 in. (585 mm) between a handrail and seating between a guardrail and seating where the aisle is sub ded by a handrail
42 in. (1065 mm) for level or ramped aisles having ing on both sides, or 36 in. (915 mm) where the does not serve more than 50 seats
36 in. (915 mm) for level or ramped aisles having sea on only one side
23 in. (585 mm) between a handrail or a guardrail seating where the aisle does not serve more than five on one side

**12.5.6.4 Aisle Stairs and Aisle Ramps.**

**12.5.6.4.1*** The following shall apply to aisle stairs and s:

Aisles having a gradient steeper than 1 in 20, but steeper than 1 in 8, shall consist of an aisle ramp.
Aisles having a gradient steeper than 1 in 8 shall co of an aisle stair.

**12.5.6.4.2** Aisle stairs shall comply with 7.2.2 except as o addressed by this chapter.

**12.5.6.4.3** Table 7.2.2.2.1.1(a) and Table 7.2.2.2.1.1(b) ppb to aisle stairs.

**12.5.6.5 Aisle Stair Treads.** Aisle stair treads shall meet allowing criteria:

There shall be no variation in the depth of adja treads that exceeds 3/16 in. (4.8 mm), unless other permitted by 12.2.5.6.5(2).
Construction-caused nonuniformities in tread depth be permitted, provided that both of the following cri are met:

(a) The nonuniformity does not exceed 3/8 in. (10 m
(b) The aisle tread depth is 22 in. (560 mm) or grea
Tread depth shall be not less than 11 in. (280 mm).
All treads shall extend the full width of the aisle.

**12.5.6.6 Aisle Stair Risers.** Aisle stair risers shall meet a allowing criteria:

Riser heights shall be not less than 4 in. (100 mm) in stairs, unless aisle stairs are those in folding and scopic seating.

# FIRE PROTECTION

**TABLE 403.1**
**MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES[a]**
**(See Sections 403.1.1 and 403.2)**

| NO. | CLASSIFICATION | OCCUPANCY | DESCRIPTION | WATER CLOSETS (URINALS: SEE SECTION 419.2) | | LAVATORIES | | BATHTUBS/ SHOWERS | DRINKING FOUNTAIN (SEE SECTION 410) | OTHER |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | MALE | FEMALE | MALE | FEMALE | | | |
| 1 | Assembly | A-1[d] | Theaters and other buildings for the performing arts and motion pictures | 1 per 125 | 1 per 65 | 1 per 200 | — | — | 1 per 500 | 1 service sink |
| | | A-2[d] | Nightclubs, bars, taverns, dance halls and buildings for similar purposes | 1 per 40 | 1 per 40 | 1 per 75 | — | — | 1 per 500 | 1 service sink |
| | | | Restaurants, banquet halls and food courts | 1 per 75 | 1 per 75 | 1 per 200 | — | — | 1 per 500 | 1 service sink |
| | | A-3[d] | Auditoriums without permanent seating, art galleries, exhibition halls, museums, lecture halls, libraries, arcades and gymnasiums | 1 per 125 | 1 per 65 | 1 per 200 | — | — | 1 per 500 | 1 service sink |
| | | | Passenger terminals and transportation facilities | 1 per 500 | 1 per 500 | 1 per 750 | — | — | 1 per 1,000 | 1 service sink |
| | | | Places of worship and other religious services | 1 per 150 | 1 per 75 | 1 per 200 | — | — | 1 per 1,000 | 1 service sink |
| 1 (cont.) | Assembly | A-4 | Coliseums, arenas, skating rinks, pools and tennis courts for indoor sporting events and activities | 1 per 75 for the first 1,500 and 1 per 120 for the remainder exceeding 1,500 | 1 per 40 for the first 1,520 and 1 per 60 for the remainder exceeding 1,520 | 1 per 200 | 1 per 150 | — | 1 per 1,000 | 1 service sink |
| | | A-5 | Stadiums, amusement parks, bleachers and grandstands for outdoor sporting events and activities | 1 per 75 for the first 1,500 and 1 per 120 for the remainder exceeding 1,500 | 1 per 40 for the first 1,520 and 1 per 60 for the remainder exceeding 1,520 | 1 per 200 | 1 per 150 | — | 1 per 1,000 | 1 service sink |
| 2 | Business | B | Buildings for the transaction of business, professional services, other services involving merchandise, office buildings, banks, light industrial and similar uses | 1 per 25 for the first 50 and 1 per 50 for the remainder exceeding 50 | | 1 per 40 for the first 80 and 1 per 80 for the remainder exceeding 80 | | — | 1 per 100 | 1 service sink[e] |
| 3 | Educational | E | Educational facilities | 1 per 50 | | 1 per 50 | | — | 1 per 100 | 1 service sink |
| 4 | Factory and industrial | F-1 and F-2 | Structures in which occupants are engaged in work fabricating, assembly or processing of products or materials | 1 per 100 | | 1 per 100 | | (see Section 411) | 1 per 400 | 1 service sink |
| 5 | Institutional | I-1 | Residential care | 1 per 10 | | 1 per 10 | | 1 per 8 | 1 per 100 | 1 service sink |
| | | I-2 | Hospitals, ambulatory nursing home care recipient | 1 per room[c] | | 1 per room[c] | | 1 per 15 | 1 per 100 | 1 service sink per floor |
| | | | Employees, other than residential care[b] | 1 per 25 | | 1 per 35 | | — | 1 per 100 | — |
| | | | Visitors, other than residential care | 1 per 75 | | 1 per 100 | | — | 1 per 500 | — |
| | | I-3 | Prisons[b] | 1 per cell | | 1 per cell | | 1 per 15 | 1 per 100 | 1 service sink |
| | | | Reformitories, detention centers, and correctional centers[b] | 1 per 15 | | 1 per 15 | | 1 per 15 | 1 per 100 | 1 service sink |
| | | | Employees[b] | 1 per 25 | | 1 per 35 | | — | 1 per 100 | — |
| | | I-4 | Adult day care and child day care | 1 per 15 | | 1 per 15 | | 1 | 1 per 100 | 1 service sink |
| 6 | Mercantile | M | Retail stores, service stations, shops, salesrooms, markets and shopping centers | 1 per 500 | | 1 per 750 | | — | 1 per 1,000 | 1 service sink[e] |
| 7 | Residential | R-1 | Hotels, motels, boarding houses (transient) | 1 per sleeping unit | | 1 per sleeping unit | | 1 per sleeping unit | — | 1 service sink |
| | | R-2 | Dormitories, fraternities, sororities and boarding houses (not transient) | 1 per 10 | | 1 per 10 | | 1 per 8 | 1 per 100 | 1 service sink |
| | | R-2 | Apartment house | 1 per dwelling unit | | 1 per dwelling unit | | 1 per dwelling unit | — | 1 kitchen sink per dwelling unit; 1 automatic clothes washer connection per 20 dwelling units |
| | | R-3 | Congregate living facilities with 16 or fewer persons | 1 per 10 | | 1 per 10 | | 1 per 8 | 1 per 100 | 1 service sink |
| | | R-3 | One- and two-family dwellings and lodging houses with five or fewer guestrooms | 1 per dwelling unit | | 1 per dwelling unit | | 1 per dwelling unit | — | 1 kitchen sink per dwelling unit; 1 automatic clothes washer connection per dwelling unit |
| | | R-4 | Congregate living facilities with 16 or fewer persons | 1 per 10 | | 1 per 10 | | 1 per 8 | 1 per 100 | 1 service sink |
| 8 | Storage | S-1 S-2 | Structures for the storage of goods, warehouses, storehouse and freight depots. Low and Moderate Hazard. | 1 per 100 | | 1 per 100 | | See Section 411 | 1 per 1,000 | 1 service sink |

a. The fixtures shown are based on one fixture being the minimum required for the number of persons indicated or any fraction of the number of persons indicated. The number of occupants shall be determined by the *International Building Code*.
b. Toilet facilities for employees shall be separate from facilities for inmates or care recipients.
c. A single-occupant toilet room with one water closet and one lavatory serving not more than two adjacent patient sleeping units shall be permitted provided that each patient sleeping unit has direct access to the toilet room and provision for privacy for the toilet room user is provided.
d. The occupant load for seasonal outdoor seating and entertainment areas shall be included when determining the minimum number of facilities required.
e. For business and mercantile occupancies with an occupant load of 15 or fewer, service sinks shall not be required.

## Number of Fixtures

Round any fractions up
- Water closets (toilets/urinals)
- Lavatories
- Bathtubs or showers
- Drinking fountains
- Service sink

Min. 1 toilet per floor

## Planning

Male / female ratios: if not specified, divide the number equally

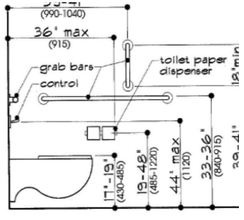
Can combine restroom into one common room as long as path of travel < 500 feet

Private bath facility cannot be deducted from requirement

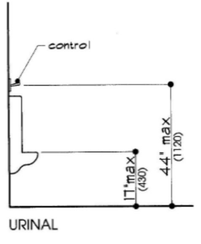
Unisex allowed in smaller sq. footages and occupancies and must be accessible; req'd when 6 or more toilets provided

Can provide separate or combined facilities for employees and customers (path of travel < 500 feet for employee)

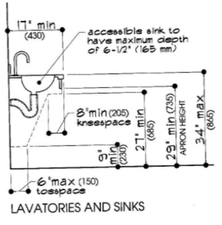
Accessible: req'd for unisex/single-toilet facilities



WATER CLOSET



URINAL



LAVATORIES AND SINKS

## Water Closets

Required for every floor (min. 1)
Must meet min. water use (gpf): 1.6 gpf (EPAct 1992)
Elongate bowl with hinged seat and open front
Min. of 15" to side wall and at least 21" in front of bowl (non-accessible)
- Accessible toilets require at least 18" (range of 16 – 18")

Toilet height: 17 – 19"
Accessible space: 60 x 56" typ

## Urinals

Not required for every occupancy
Must meet min. water use (gpf): 1.0 gpf (EPAct 1992)
Can substitute for req'd toilets (no more than 2/3 of req'd male toilets)
Privacy panels are required when more than one urinal is used
Accessible space in front of urinal: 30 x 48" typ.

## Lavatories

Codes require fewer lavatories than toilets
Faucet must meet min. water use (gpm): 2.2gpm (EPAct 1992)
Sensor-type help reduce water consumption
Level handles, push type or automatic
Accessibility: One fully accessible lavatory per floor with 30 x 48" w/ 19" kneespace
Hot water pipes must be covered with a removable panel

## Sinks

Include service sinks, utility sinks, kitchen sinks, laundry basins
Breakroom sinks should be accessible: Counter: 34" AFF, 25" deep max, Clearance: 30 "w x 48"l clear floor area w/ min. 19" deep x 27" h kneespace. Sink: 6-1/2" deep max

# PLUMBING

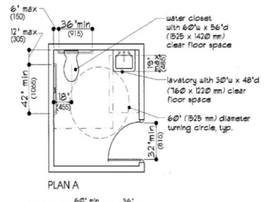
(Kennon & Harmon, 2018)

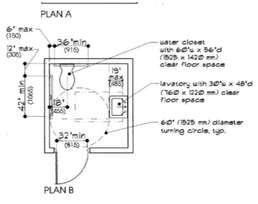
## Single Toilet Facilities

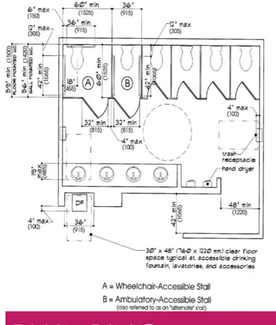
Must be accessible

- Doors swinging into accessible restrooms or stalls cannot reduce req'd clear floor space. However, some jurisdictions allow door to swing into the 60" turning space
- Clear floor space for different fixtures can overlap

Always draw in the clear floor space and turning circle to indicate compliance




## Multiple Toilet Facilities

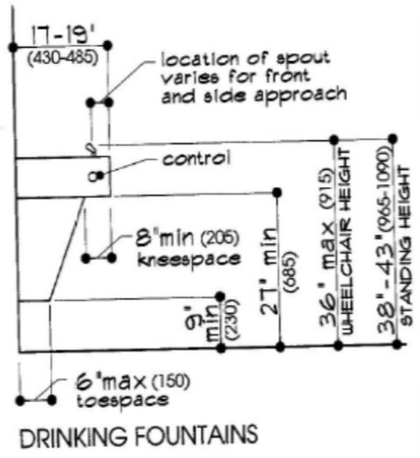
Stalls must be used

- At least one stall must be accessible
- More than 6, at least two are accessible typically an ambulatory stall

There must be a 60" turning circle in the room and clear 30 x 48" floor space at all areas (lavatory, urinal and accessory units)

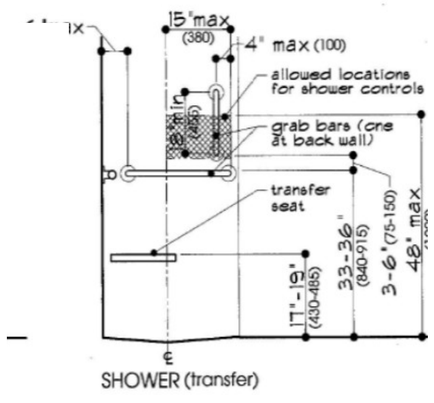
## Drinking Fountains

Required on each floor of a building (except some R, restaurants)
1 standing height + 1 wheelchair accessible per floor
Some allow water coolers to substitute – verify with the code official first
Cannot be inside a public toilet room or the vestibule leading to the toilet
Usually located in the hallway outside the restroom area
Caution: protruding object rule: Not more than 4" into accessible path of travel
Alcoves must be a minimum of 36" wide and provide at least 30 x 48" clear floor space




# PLUMBING

(Kennon & Harmon, 2018)




## Showers

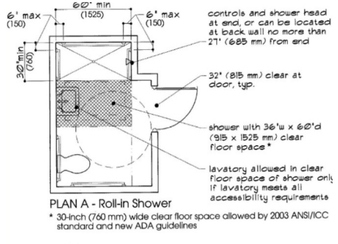
Used in hotels, and institutional facilities as well as gymnasiums, health clubs, and in some manufacturing plants where people are exposed to skin contamination.

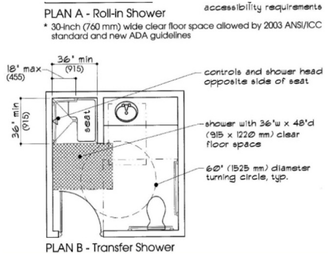
Accessible showers are either transfer or roll-in type

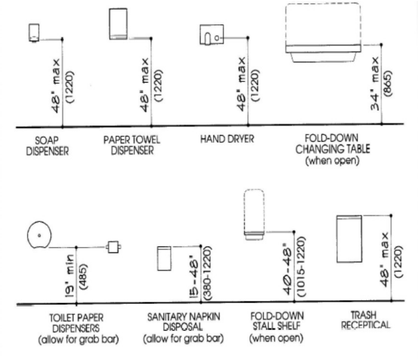
- Transfer: 36 x 36 minimum with 36 x 48 clear floor area and a fixed or folding shower seat.
- Roll-in: 30 x 60" with 36 x 60" clear floor space (seats are optional)

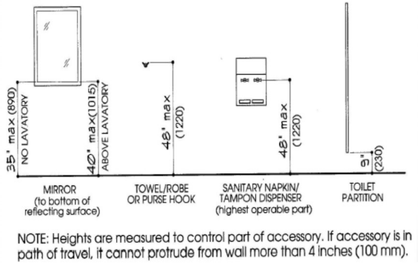
## Bathing Facilities

Includes a shower or bathtub
A certain percentage will be required to be accessible
Floor drain may be required in multiple toilet facilities




## Accessories + Grab Bars

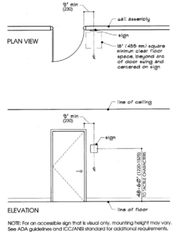
Mirrors, dispensers, receptacles, disposal units, air hand dryers, vending machines• All accessories must be accessible in single-toilet rooms.

- At least one of each type should be accessible in multi- fixture rooms.
- 4" limit on projections in circulation path
- Work within accessible reach ranges
- Grab bars require at all accessible toilets, showers and tubs. 33" – 36" AFF

## Signage

Required by code

- Non-accessible facilities should have sign indicating the location of the accessible stall
- International symbol of Accessibility should be use and on the stall door that is accessible.
- Locate signs between 48 – 60" AFF on the latch side of the door




# PLUMBING

(Kennon & Harmon, 2018)

**TABLE 1020.2**
**MINIMUM CORRIDOR WIDTH**

| OCCUPANCY | MINIMUM WIDTH (inches) |
|---|---|
| Any facilities not listed below | 44 |
| Access to and utilization of mechanical, plumbing or electrical systems or equipment | 24 |
| With an occupant load of less than 50 | 36 |
| Within a *dwelling unit* | 36 |
| In Group E with a *corridor* having an occupant load of 100 or more | 72 |
| In *corridors* and areas serving stretcher traffic in ambulatory care facilities | 72 |
| Group I-2 in areas where required for bed movement | 96 |

For SI: 1 inch = 25.4 mm.

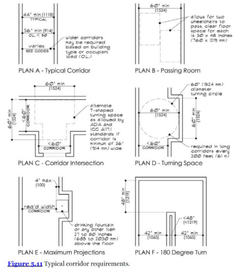



Figure 5.11 Typical corridor requirements.

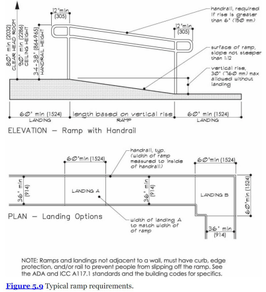



Figure 5.9 Typical ramp requirements.

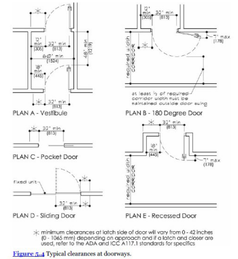
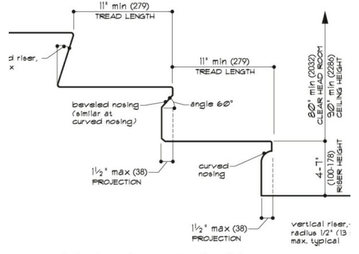



Figure 5.4 Typical clearances at doorways.




re 5.5 Typical stair requirements: Treads and risers.

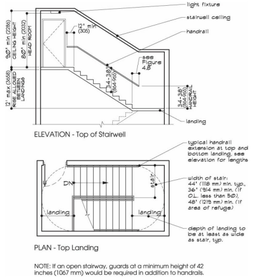
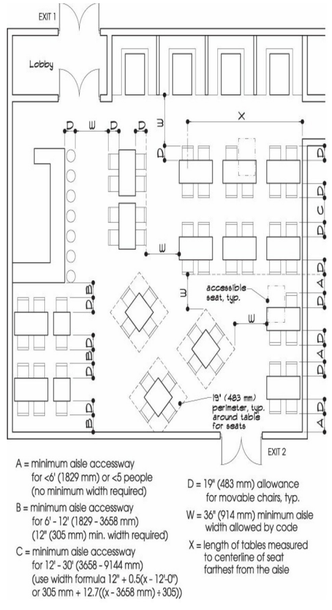
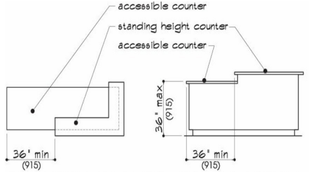



Figure 5.6 Typical stairway requirements: Clearances.

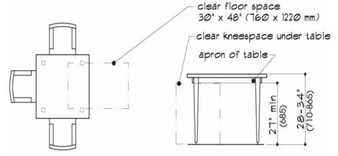
ACCESSIBILITY

(Kennon & Harmon, 2018)

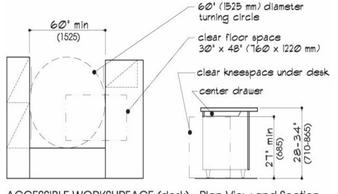


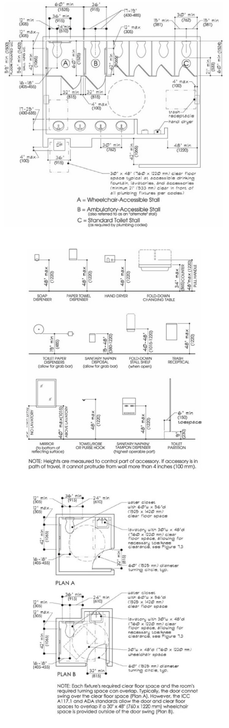

ACCESSIBLE SERVICE COUNTER - Plan View and Elevation

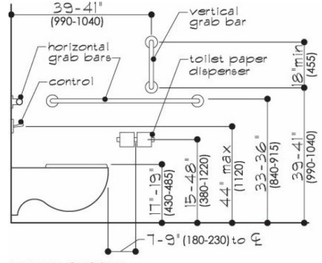



ACCESSIBLE DINING SURFACE (table) - Plan View and Section

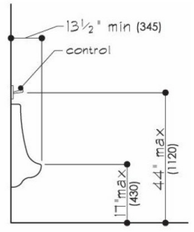



ACCESSIBLE WORKSURFACE (desk) - Plan View and Section

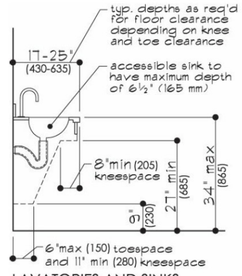


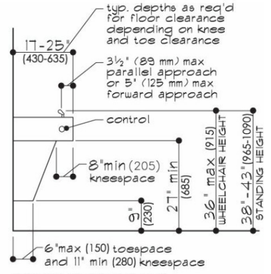

WATER CLOSET




URINAL - WALL HUNG




LAVATORIES AND SINKS




DRINKING FOUNTAINS

# ACCESSIBILITY

(Kennon & Harmon, 2018)

## Mechanical Rooms

Depending on the size of the building and the type of the mechanical system used, these rooms can be separate or combined into one.

It is the size and location that are important:

- Each room must have a min door width and an unobstructed passageway so that appliances and equipment can be easily replaced
- Min working space along the control side of each appliance is required
- Not typically required to be accessible

## Heating + Cooling Loads

Refer to how much energy is required to heat or cool a space, and are one of the main factors in determining the size and type of mechanical system.

- The number, size and type of glazing in the exterior windows are a factor
- Other factors: total size and configuration of space, the number or people and certain window treatments
- Also the amount of heat generating elements in the space: lights, projectors, computers, copiers, etc.

## Zoning + Thermostat Locations

Different areas of the building may be zoned separately to provide different levels of comfort. For example:

- Perimeter rooms with exterior windows are zoned separately from interior
- Some are zoned because they have a special use: kitchens, locker rooms, computer room, conference room

The codes do not specify the location of the sensor or thermostat; but the location can affect the effectiveness of the overall system.

## Exhaust Requirements

Although proper exhaust and indoor air quality is especially important in hazardous types of occupancies, the codes require a growing number of rooms and areas to be exhausted within several occupancies. These include toilet and bathing facilities, designated smoking areas, special use rooms in health care facilities, high occupant density spaces, and areas with cooking appliances. Clothes dryers are also required to be exhausted.

The rate at which air must be removed from an area is set by the codes and is generally based on the activity or type of air that is being exhausted. The mechanical codes also may limit the length of the exhaust pipe or duct, including the number of 45 or 90 degree bends it can make.

## Ventilation Requirements

Ventilation can be brought in by natural air flow through operable windows, vents, or louvers (known as natural ventilation) or by a mechanical system (known as mechanical ventilation). The mechanical codes regulate both. They regulate the size of the window, vent, or louver and the amount of required outside air based on the floor area of the space that is being ventilated and the estimated maximum occupant load. More current codes take into consideration other building contents, such as building materials and furnishings, which can also affect the quality of air.

Some specialty rooms, such as a computer or x ray room, may have more specific and higher ventilation requirements. Other areas requiring special ventilation include atriums and vestibules.



(Kennon & Harmon, 2018)

## Electrical Panels + Rooms

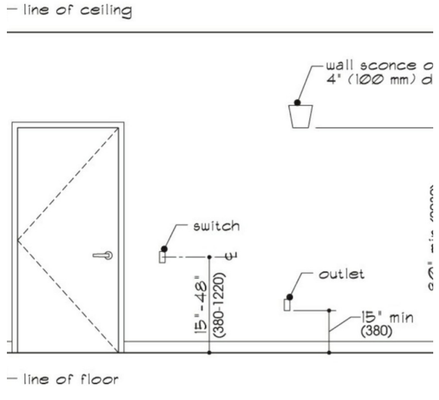
The most typical requirements is that there must be a clear working space at least 3' deep by 30" wide in front of the panel and clear space above the panel. (Larger panels or panels with higher voltages may require more clearance.) Other equipment in the room, including transformers, may require clearances as well.

Depending on the size of the room and the equipment in it, the room may be required to be fire rated. Also, depending on the size of the room and/or equipment, the door(s) must meet certain egress requirements for location, direction of swing, and hardware used. The service entrance room must also be ventilated to control heat buildup from the equipment.

## Outlet Boxes

Tamper resistant outlets require pressure on two or more of the prongs to open the outlet. This prevents someone from accidentally sticking an object in one side and contacting the electrical current. Commercial uses that are now required to have tamper resistant outlets include guest rooms and guest suites in lodging facilities, child care facilities, preschool and elementary schools (all areas), offices, corridors and waiting rooms within medical clinics and outpatient facilities, transportation stations, gymnasiums, skating rinks, and auditoriums.

The NEC does not typically specify number or locations of receptacle or lighting outlet boxes in these occupancies. Instead, their placement is determined by specific equipment requirements and convenience considerations. However, starting in 2017, NEC specifies locations for outlets for meeting rooms. Outlets are required on the perimeter walls and within the room in the floor based on the size of the room.

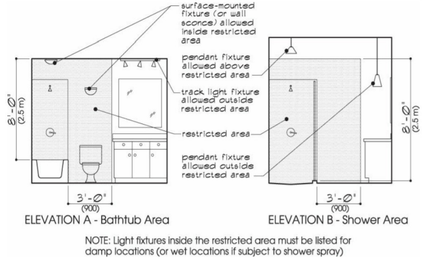



## Ground Fault Circuit Interrupters

The NEC requires that exterior receptacle outlets be GFCIs. On interior projects, typically all standard 125 volt, 15 amp, and 20 amp receptacle outlets located in areas where there is water should be specified as GFCIs. These areas include restrooms, bathrooms, kitchens, break rooms, bar areas, laundry rooms, and even pools or spas.

Public and/or employee restrooms: All receptacle outlets provided in public and/or employee restrooms must be GFCI protected. This includes any outlet near the lavatory as well as any other outlet in the room. Examples include restrooms in commercial buildings, airports, and industrial facilities.

Sinks in other occupancies: Receptacle outlets within 6 feet of the edge of any sink in a nondwelling situation must be GFCI protected. Therefore, the typical break room or kitchenette now requires GFCIs in certain locations. This also applies to sinks in janitor closets, exam rooms, classrooms, and the like.






(Kennon & Harmon, 2018)

## Emergency Power Systems

Must have the capacity to operate such equipment as means of egress lighting, exit signs, automatic door locks, certain fire protection systems, and other emergency equipment.

Illumination level: Artificial lighting must be present in the means of egress when a building is in use. The intensity of the emergency lighting must typically be 1 footcandle (11lux) at the floor level on the path of egress. (These numbers can be reduced during performance times in some Assembly occupancies.) More recently,the NFPA codes added that new stairways be illuminated by at least 10 footcandles (108 lux).

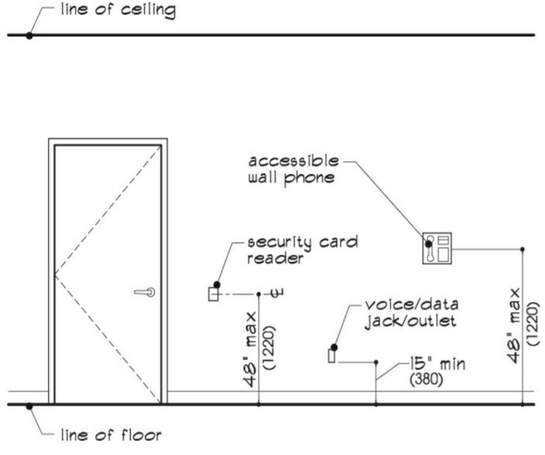
Exit signs: Exit signs must be located and illuminated in such a way that they can direct occupants safely out of the building. Typically, they must be illuminated by at least 5 footcandles (54 lux) at the illuminated surface and have a contrast level of not less than 0.5.

Emergency power: Provisions must be made so that in case of power loss, emergency or exit lighting will be available for a certain period of time. Most codes require that exit lighting be connected to an emergency power source that will ensure illumination for at least 1½ hours in case of power failure. In some occupancies, such as Assembly, Institutional, or Hazardous occupancies, a separate source of emergency power must be provided for the exit signs and illumination may be required for a longer time.

# ELECTRICAL

(Kennon & Harmon, 2018)

When communication cables are installed throughout a building, the codes typically require that they be kept separate from electrical cabling. In most cases, communication cables cannot be placed in any raceway, compartment, conduit, outlet box, or junction box used for electric light or power. When communication cables are run horizontally across a ceiling, they can usually remain exposed. However, the codes specify that the cables must be run in a "neat and workmanlike manner," and they cannot block access when used above suspended ceiling systems. This is accomplished by using hangers, straps, and cable ties to keep the cables together. They are often secured at the ceiling using cable tray or J hooks.




# COMMUNICATIONS

(Kennon & Harmon, 2018)

| FINISH CATEGORY | FINISH EXAMPLES | TYPICAL TEST REQUIRED |
|---|---|---|
| CEILING TREATMENTS[1] | Ceiling Tiles<br>Fabric Coverings<br>Vinyl Coverings<br>Special Finishes | *Steiner Tunnel Test*<br>*Room Corner Test* |
| WALLCOVERINGS[2] | Vinyl Wallcoverings<br>Fabric Wallcoverings<br>Expanded Vinyl Wallcoverings<br>Wood Paneling<br>Wood Veneers | *Steiner Tunnel Test*<br>*Room Corner Test* |
| FLOOR COVERINGS[3] | Carpets<br>Rugs<br>Carpet Padding<br>Hard Surface Flooring<br>Resilient Flooring | *Pill Test*<br>*Radiant Panel Test* |
| WALL BASE | All types 6 inches or less | *Radiant Panel Test* |
| WINDOW TREATMENTS AND VERTICAL HANGINGS[3] | Draperies and Liners<br>Blinds<br>Wood Shutters<br>Wall Hangings<br>Acoustical Fabrics<br>Panel Fabrics | *Vertical Flame Test* |
| TRIM AND DECORATIVE MATERIALS[4] | Decorative Mouldings<br>Wainscoting<br>Chair Rails<br>Picture Rails<br>Baseboards | *Steiner Tunnel Test*<br>*Room Corner Test* |
| UPHOLSTERIES | Fabrics<br>Vinyls, Battings, Welt Cords<br>Foams<br>Interliners<br>Fillings | *Steiner Tunnel Test*<br>*Smolder Resistance Test*<br>*Smoke Density Test* |
| FURNITURE | Seating<br>Panel Systems<br>Mattresses | *Smolder Resistance Test*<br>*Upholstered Seating Test*<br>*Mattress* |

## Colorfastness to Light

A material's degree of resistance to the fading effects of exposure to ultraviolet sources.
- Grade 5 = no fading
- Grade 4 = slight fading
- Grade 1 = high degree of fading

## Flammability

The measurement of a fabric's performance when it is exposed to specific sources of ignition.
- Class A: Flame Spread Index of 25 or less
- Class B: Flame Spread Index of 26 to 75
- Class C: Flame Spread Index of 76 to 200

## Physical Properties

Physical property tests include: Brush Pill, Breaking Strength and Seam Slippage. The number of pill balls are counted and given a 1 – 5 rating.
- Class 5 = no pilling
- Class 1 = severe pilling

## Wet + Dry Crocking

Transfer of dye from the surface of a dyed or printed fabric onto another surface by rubbing. The amount of color transferred to the white test squares is compared to an AATCC color chart
- Grade 5 = no color transfer
- Grade 1 = high degree of color transfer



(Kennon & Harmon, 2018)

## Steiner Tunnel Tests - Walls + Ceilings

There are three classes for wall and ceiling finishes (Classes A, B, and C), which are obtained using Steiner Tunnel Tests. Class A being the most restrictive and Class C being the least.

The Steiner Tunnel Test is the principal test used to determine both the flame spread and smoke development ratings in the classification of interior finishes applied to walls, ceilings, and other structural elements, such as columns.

**Class A:** Flame spread index 0–25, smoke development index 0–450
**Class B:** Flame spread index 26–75, smoke development index 0–450
**Class C:** Flame spread index 76–200, smoke development index 0–450

There are two separate classes for interior floor finishes (Classes I and II), which are obtained using Radiant Panel Tests.

## Radiant Panel Tests - Floors

The test measures the floor covering's tendency to spread a fire. The higher the value, the more heat energy it takes to ignite the finish, making it more resistant to flame spread.

**Class I:** CRF, minimum of 0.45 watts per square centimeter
**Class II:** CRF, minimum of 0.22 watts per square centimeter

**Table A.10.2.2 Interior Finish Classification Limitations**

| Occupancy | Exits | Exit Access Corridors | Other Spaces |
|---|---|---|---|
| Assembly — New | | | |
| >300 occupant load | A | A or B | A or B |
| | I or II | I or II | NA |
| ≤300 occupant load | A | A or B | A, B, or C |
| | I or II | I or II | NA |
| Assembly — Existing | | | |
| >300 occupant load | A | A or B | A or B |
| ≤300 occupant load | A | A or B | A, B, or C |
| Educational — New | A | A or B | A or B; C on low partitions† |
| | I or II | I or II | NA |
| Educational — Existing | A | A or B | A, B, or C |
| Day-Care Centers — New | A | A | A or B |
| | I or II | I or II | NA |
| Day-Care Centers — Existing | A or B | A or B | A or B |
| Day-Care Homes — New | A or B | A or B | A, B, or C |
| | I or II | | NA |
| Day-Care Homes — Existing | A or B | A, B, or C | A, B, or C |
| Health Care — New | A | A | A |
| | NA | B on lower portion of corridor wall† | B in small individual rooms† |
| | I or II | I or II | NA |
| Health Care — Existing | A or B | A or B | A or B |
| Detention and Correctional — New (sprinklers mandatory) | A or B | A or B | A, B, or C |
| | I or II | I or II | NA |
| Detention and Correctional — Existing | A or B | A or B | A, B, or C |
| | I or II | I or II | NA |
| One- and Two-Family Dwellings and Lodging or Rooming Houses | A, B, or C | A, B, or C | A, B, or C |
| Hotels and Dormitories — New | A | A or B | A, B, or C |
| | I or II | I or II | NA |
| Hotels and Dormitories — Existing | A or B | A or B | A, B, or C |
| | I or II† | I or II† | NA |
| Apartment Buildings — New | A | A or B | A, B, or C |
| | I or II | I or II | NA |
| Apartment Buildings — Existing | A or B | A or B | A, B, or C |
| | I or II† | I or II† | NA |
| Residential Board and Care — *(See Chapters 32 and 33.)* | | | |
| Mercantile — New | A or B | A or B | A or B |
| | I or II | | NA |
| Mercantile — Existing | | | |
| Class A or Class B stores | A or B | A or B | Ceilings — A or B; walls — A, B, or C |
| Class C stores | A, B, or C | A, B, or C | A, B, or C |
| Business and Ambulatory Health Care — New | A or B | A or B | A, B, or C |
| | I or II | | NA |
| Business and Ambulatory Health Care — Existing | A or B | A or B | A, B, or C |
| Industrial | A or B | A, B, or C | A, B, or C |
| | I or II | I or II | NA |
| Storage | A or B | A, B, or C | A, B, or C |
| | I or II | | NA |



(Kennon & Harmon, 2018)

## ANSI/BIFMA X5.1 Office Chairs

Typically used to provide safety and performance requirements for chairs that are primarily designed for use in an office environment. Examples include but are not limited to seating styles typically referred to as: executive/management, task/secretarial, side/guest chairs, nesting and/or folding chairs. These chairs are for single occupants and the tests are based on the 95th percentile male body weight (currently 275 lbs.). Chairs may include features such as: stacking, stool, tablet arm.

## ANSI/BIFMA X6.1 Educational Seating

Many tests based on X5.1 but is typically used for seating products that are primarily designed for use in schools (K-12) and colleges/universities. It includes chair-desks, tablet-arm products, convertible bench/tables; in addition to many of the types of chairs and features described in X5.1. This standard provides guidance for three sizes of chairs based on seat height. The small and medium size chairs may be more suitable for K-6 environments catering to smaller users. The large size is based on the 95th percentile male.

## ANSI/BIFMA X5.4 Lounge & Public Seating

Provides safety and performance requirements for seating that is primarily designed for use in indoor common or shared spaces such as: waiting, reception, patient rooms, restaurant/dining/cafeteria settings, and other gathering areas. Public seating includes products with single or multiple seat units, arena folding chairs, and standard folding chairs. Public and lounge seating may be ganged or otherwise connected. Seating units that must be attached to the building structure for support or stability purposes are not specifically addressed in this standard (though aspects of this standard may nonetheless be useful). The tests are based on the 95th percentile male body weight.

## ANSI/BIFMA X5.5 Desk/Table Products

Covers commercial desks and tables. It also offers several tests for Monitor Arms.

## ANSI/BIFMA X7.1 Standard for Formaldehyde Emissions

Provides industry approved emissions requirements for low-emitting seating and office furniture products.

## BIFMA G1 Ergonomics Guideline for Furniture

Gives dimensional recommendations for seating and other workstation task-oriented furniture products that are primarily designed for use with a computer.

# FURNITURE

(Business and Institutional Furniture Manufacturers Association, n.d.)

## Fitwel

The Fitwel Scorecards include 55+ evidence-based design and operational strategies that enhance buildings by addressing a broad range of health behaviors and risks. Each strategy is associated with unique point allocations, based on the strength of associated evidence and the demonstrated impact on occupant health. This means that strategies with stronger, multi-faceted impacts receive more points.

Fitwel addresses health as an interconnected system, with no single dominant category or area of focus, and as such all strategies are voluntary, with no individual prerequisites.

- Impacts Surrounding Community Health
- Reduces Morbidity and Absenteeism
- Supports Social Equity for Vulnerable Populations
- Instills Feelings of Well-Being
- Enhances Access to Healthy Foods
- Promotes Occupant Safety
- Increases Physical Activity

## Location

Buildings located in more walkable neighborhoods provide enhanced access to nearby amenities and public transit, contributing to increased physical activity, occupant safety, feelings of wellbeing, and diminished rates of morbidity and absenteeism. Sample strategies include optimizing WalkScore and transit access.

## Building Access

Multi-modal access to buildings encourages active transportation, contributing to increased physical activity, occupant safety, surrounding community health, social equity, and feelings of well-being. Sample strategies include providing bicycle parking, pedestrian connectivity, and incentives for public transit use.

## Outdoor Spaces

Onsite or nearby outdoor spaces and outdoor amenities provide exposure to quality, natural settings and local produce, contributing to increased physical activity, feelings of well-being, surrounding community health, social equity, access to healthy foods, and diminished rates of morbidity and absenteeism. Sample strategies include establishing and implementing a tobacco- and smoke-free policy in outdoor spaces and providing outdoor amenities such as walking trails, a fruit and vegetable garden, and an outdoor fitness area

## Entrances + Ground Floor

Ground floors optimized to promote improved air quality, walk-ability, and access to health-promoting amenities, contribute to increased physical activity, occupant safety, feelings of well-being, surrounding community health, and diminished rates of morbidity and absenteeism. Sample strategies include providing entryway systems to capture particulates and context appropriate lighting for pedestrian safety.

# SUSTAINABILITY

(Fitwel, n.d.)

## Stairwells

Stairs designed to maximize visibility, enhance design, and ensure safety encourage increased use, contributing to increased physical activity and occupant safety, and diminished rates of morbidity and absenteeism. Sample strategies include providing accessible, visible, and well-designed stairwells.

## Indoor Environment

An indoor environment designed and maintained to limit prolonged exposure to harmful airborne substances and pollutants improves indoor air quality, contributing to enhanced feelings of well-being and social equity, and diminished rates of morbidity and absenteeism. Sample strategies include establishing and implementing a tobacco- and smoke-free building policy, providing an asbestos-free interior, and establishing and implementing an Indoor Air Quality policy.

## Workspaces + Dwellings

Personal spaces optimized to maximize access to daylight, natural elements, and environmental control contributes to enhanced feelings of well-being and diminished rates of morbidity and absenteeism. Sample strategies include providing access to daylight, views of nature, and operable shading

## Shared Spaces

On-site shared spaces designed, maintained, and activated to provide occupants with enhanced access to quality areas where they can socialize, exercise, and decompress, contribute to increased physical activity, feelings of well-being, social equity, surrounding community health, and diminished rates of morbidity and absenteeism. Sample strategies include providing an exercise room, fitness center, or quite room, or establishing health programming or a stakeholder collaboration process.

## Water Supply

Universally accessible potable water supplies improves regular hydration and can decrease consumption of sugar-sweetened beverages, contributing to enhanced access to healthy foods, increased social equity, and diminished morbidity and absenteeism. Sample strategies include providing universally accessible water supplies throughout the building

## Cafeterias + Prepared Food Areas

Prepared food areas that elevate and increase availability of nutritious options on-site enhance access to nutritious options, contributing to enhanced feelings of well-being and diminished rates of morbidity and absenteeism. Sample strategies include establishing and implementing a healthy food and beverage policy, choice architecture practices, and pricing incentives within prepared food areas.

## Vending Machines + Snack Bars

Vending machines and snack bars that elevate and increase availability of nutritious options enhance access to healthy foods, contributing to enhanced feelings of well-being and diminished rates of morbidity and absenteeism. Sample strategies include establishing and implementing a healthy food and beverage policy, choice architecture practices, and pricing incentives at vending machines and snack bars.

## Emergency Preparedness

Emergency preparedness can improve coordination and timeliness of emergency response, contributing to increased occupant safety, social equity, and diminished rates of morbidity and absenteeism. Sample strategies include establishing and implementing a comprehensive Emergency Preparedness Plan, providing an appropriate number of Automated External Defibrillators, and providing an automated emergency address notification system.

# SUSTAINABILITY

(Fitwel, n.d.)

# LOCALIZING

## OPTION #1

SITE ANALYSIS

BUILDING SHELL

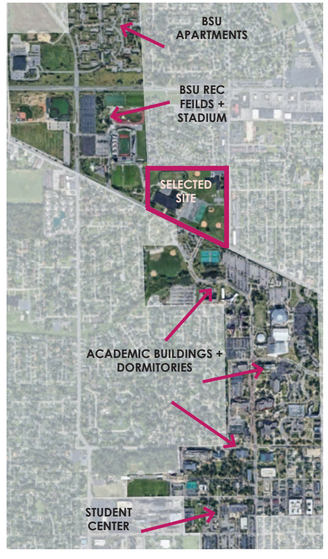
CRITERIA MATRIX

ADJACENCY DIAGRAMS

BLOCK DIAGRAMS

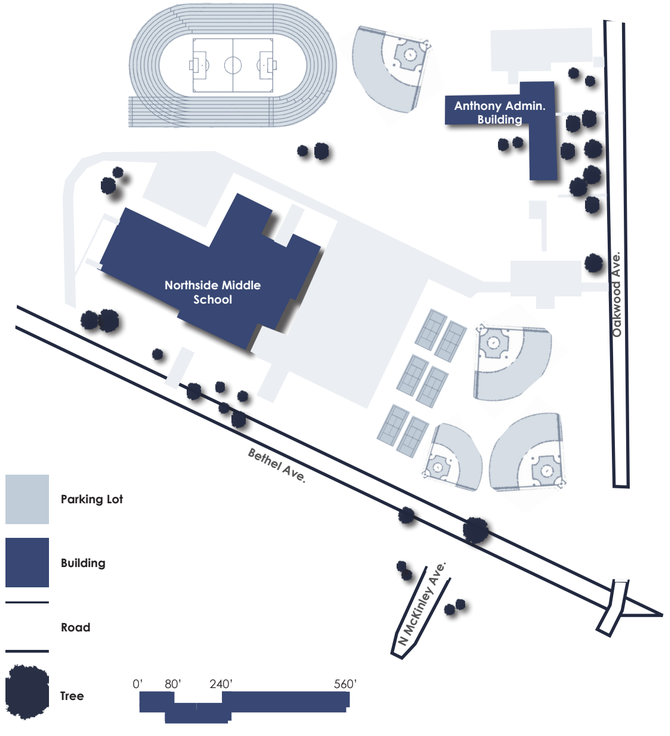
DRAFT PLANS

PROTOTYPICALS

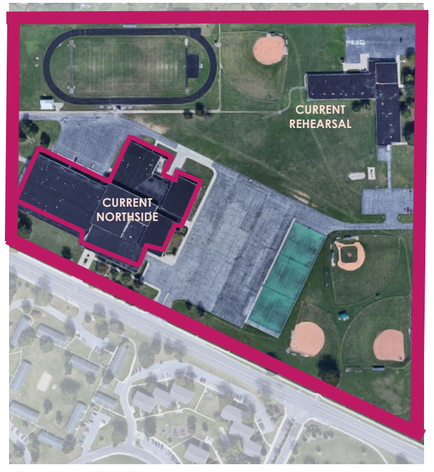

BSU APARTMENTS
BSU REC FEILDS + STADIUM
SELECTED SITE
ACADEMIC BUILDINGS + DORMITORIES
STUDENT CENTER

CURRENT REHEARSAL SPACE
CURRENT NORTHSIDE MIDDLE SCHOOL

SELECTED SITE


Anthony Admin. Building
Northside Middle School
Oakwood Ave.
Bethel Ave.
N Mckinley Ave.
Parking Lot
Building
Road
Tree
0'
80'
240'
560'

# SITE MAP




## Positive Site Attributes

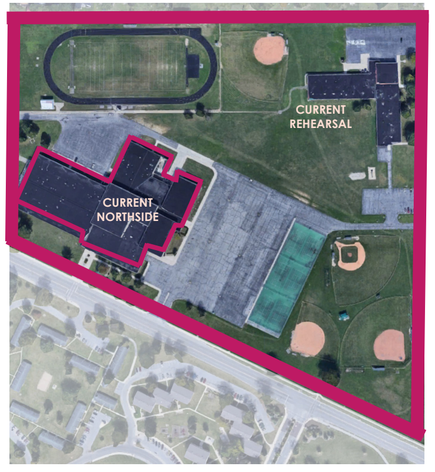
The building meets the required square footage
***Note:*** 135,355 sqft. Desired - 178,534 sqft Available

The building has a large perimeter (1,950 ft) that allows for plenty of windows + natural light
***Note:*** windows required in dance studios and performance space, interviews and surveys determined that access to natural light is a priority.

The building includes existing workshops
***Recommendation:*** May need to increase size + update equipment

Plenty of existing plumbing to connect new fixtures, no matter where they are placed

The site is extremely large, not too many trees to block the natural light + space to grow + low traffic interference
***Recommendation:*** Possibility for an outdoor space
Create complex of new performance spaces
Additional event parking
Provide space for a community/campus garden
Create a art walk/run trail
Act as additional campus recreation fields
Develop space for the campus marching band, storage + rehearsal space + place to rest during game day + walkway to stadium




## Negative Site Attributes

Not directly connected to campus
***Recommendation:*** Create a bus stop
Develop a pedestrian walkway across to campus
Provide space for a community/campus garden
Create a art walk/run trail
Act as additional campus recreation fields
Develop space for the campus marching band, storage + rehearsal space + place to rest during game day + walkway to stadium

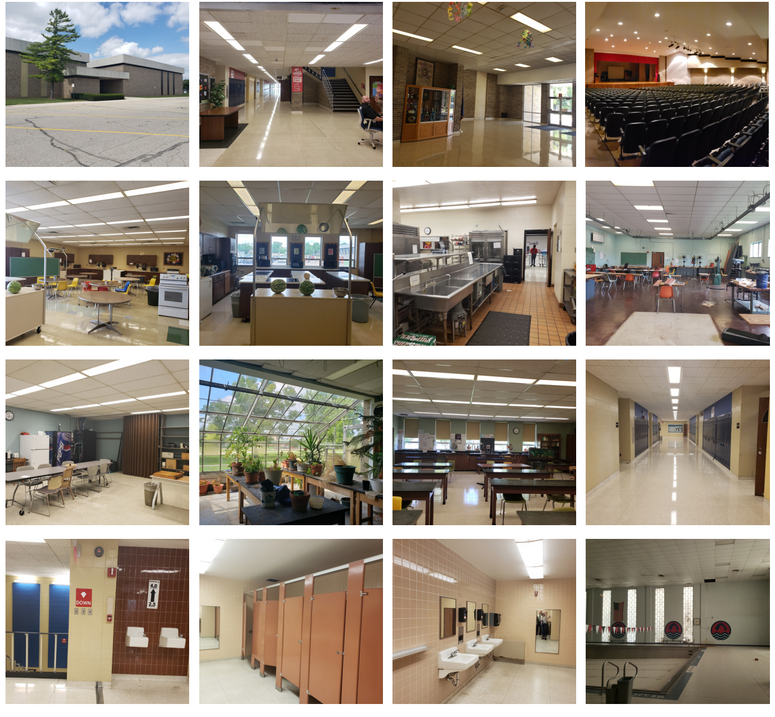
The site has existing sport fields
***Recommendation:*** Demolition or use as additional campus recreation

The building does not have a basement for trap doors, orchestra pit, etc.
***Recommendation:*** Could build up to create "basement" and required space

The building's exterior is out-dated and does not match the department's identity
***Recommendation:*** Update exterior and windows
Art installations

No loading dock available for the scene shop + backstage are
***Recommendation:*** excavate and create loading dock at the back

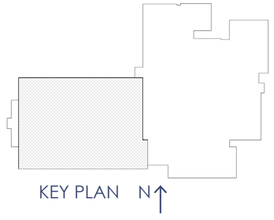
The building has an immense of amount of columns, every 26'
***Recommendation:*** Demo walls when possible, hide columns when not
Reinforce columns or add beams

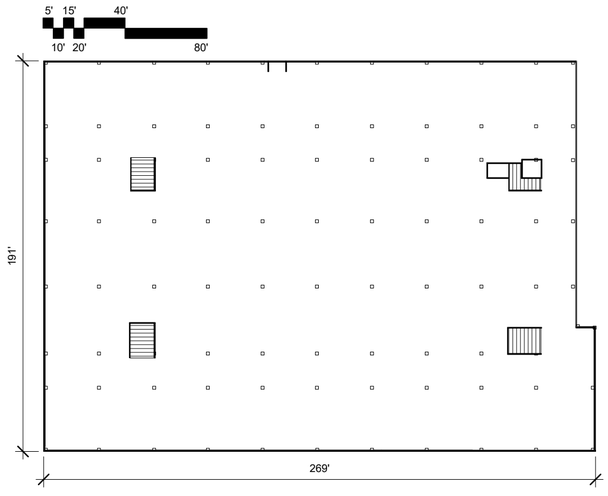


## SITE PHOTOS

Personal Images

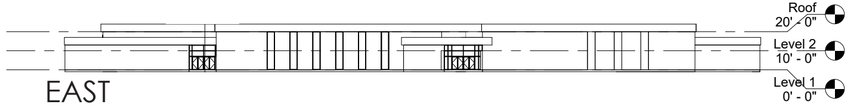
# BUILDING SHELL



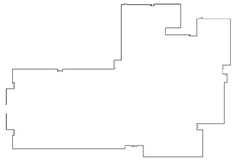



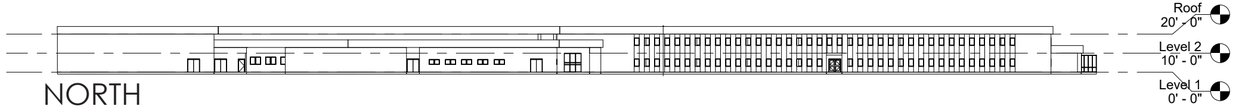

SECOND FLOOR: 1”=40’

FIRST FLOOR, EXISTING PLUMBING: 1”=40’

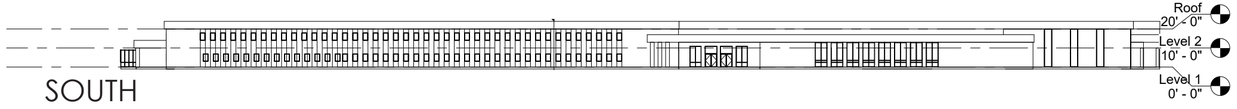



EAST

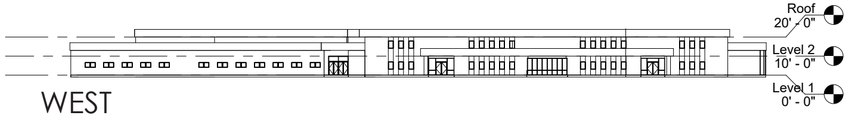



NORTH

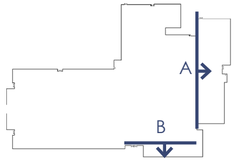


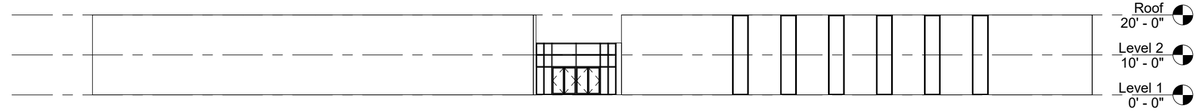

SOUTH



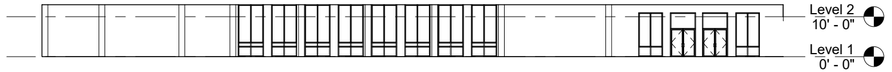

WEST

## EXTERIOR ELEVATIONS: 1"=40'



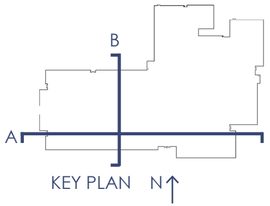




A

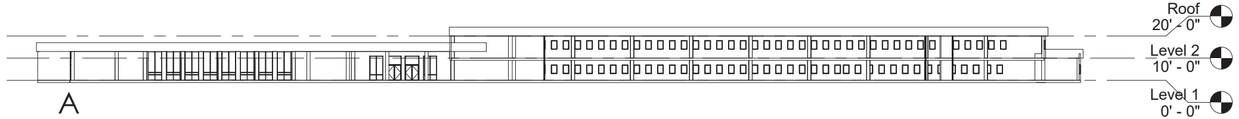


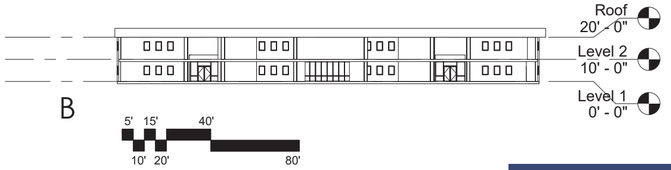

B

## INTERIOR ELEVATIONS: 1"=20'




# CRITERIA MATRIX




BUILDING SECTIONS: 1"=40'

**Total Office Square Feet** = 12,495

| Macro | | | Room Function | Adjacencies | Quantity | Existing SQ | SQ Needed | SQ Desired | Public? | Daylight? | Data? | Plumbing? | Notes | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Theater Department | Office Space | 1 | Conference Room 30+ ppl | | | | 650 | 650 | | X | X | | large table, 20+ task chairs, tv screen, video camera | workroom/collaboration room? |
| | | 2 | Conference Room 2-4 ppl | | 2 | | 150 | 150 | X | | X | | small table, 4 chairs, tv screen, various soft seating? | |
| | | 3 | Conference Room 6-8 ppl | | | | 170 | 170 | X | | X | | table, 6-8 chairs, tv screen, video camera | |
| | | 4 | Departmental Office | 7, 8, 12, 17 | 7 | 50-200 | 250 | 250 | X | X | X | | desk, task chair, 1-2 guest chairs, bookshelves/filing cabinet | |
| | | 5 | Faculty Office | 8 | 30 | 50-200 | 150 | 150 | | X | X | | sound proofing, desk, task chair, 1-2 guest chairs, bookshelves/filing cabinet | |
| | | 6 | Faculty Studio | 8 | 5 | 50-200 | 250 | 250 | | X | X | | sound proofing, desk, task chair, 1-2 guest chairs, bookshelves/filing cabinet, space to meet with students | |
| | | 7 | File Storage | 4 | | 40 | 100 | 200 | | X | | | filing cabinets, bookshelves | |
| | | 8 | Kitchenette/Lounge | 4, 5, 6, 9, 10, 11 | | | 300 | 300 | | | | X | counter, base cabinets, shelves/wall cabinets, microwave(s), sink, fridge, dishwasher, coffee pot/keruig | |
| | | 9 | Mail Room | 8 | | 60 | 100 | 125 | | | | | mail slots, counter, printer/copier, cabinets, tack board | |
| | | 10 | Music Instruction | 8, 27 | 9 | 50-200 | 200 | 200 | | X | X | | piano, sound proofing, desk, task chair, 1-2 guest chairs, bookshelves/filing cabinet, temperature control, space to meet and instruct students | |
| | | 11 | Private Room | 8 | | | 150 | 150 | | | | X | sink, counter, small fridge, soft seating, cabinets | |
| | | 12 | Recruitment Center | 4 | | 160 | 200 | 200 | X | X | X | | desks, task chairs, guest chairs, tv screens, display cases, small conference area | |
| | | 13 | Restroom M | | | | | | | | | X | urinals, toilets, lavatories, mirror, soap dispenser, towels/dryer, trash, partitions, stall accessories | |
| | | 14 | Restroom W | | | | | | | | | X | toilets, lavatories, mirror, soap dispenser, towels/dryer, trash, partitions, stall accessories | |
| | | 15 | Restroom Single | | | | 150 | 150 | | | | X | toilet, lavatorie, mirror, soap dispenser, towels/dryer, trash, stall accessories | |
| | | 16 | Student Office | | 3 | 50-200 | 150 | 150 | | | X | | desk, task chair, filing cabinets | |
| | | 17 | Waiting/Reception | 4 | | 190 | 400 | 500 | | | | | guest chairs, coffee table, side table, lamp?, tack boards, tv screen | |

## THEATER OFFICE PROGRAM + CRITERIA

**Total Instructional Square Feet** = 20,500

| Macro | | | Room Function | Adjacencies | Quantity | Existing SQ | SQ Needed | SQ Desired | Public? | Daylight? | Data? | Plumbing? | Notes | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Theater Department | Instructional Space | 18 | Acting Studio | | 3 | 700 | 1200 | 1500 | | | X | | 20 students max, stakable chairs, tablet arms?, AV, white board, projector, professor podium/table, wood | In my small classes we sit in circles on the floor unless we're watching groups I wish I had an open space |
| | | 19 | Classroom | | 3 | 600 | 750 | 900 | | | X | | 20 students, movable seating, storage, white board, projector, AV, professor podium/table | In a circular arrangement so everyone can see everyone else Conference-style tables arranged in a square with comfortable chairs. open space to inhabit and perhaps play with a more physicalized reading of the text For the small classes, I often end up moving the tables so everyone is sitting in a circle. I would love one giant table that we could all sit around. "low" lights that allow students to see notes but also see the |
| | | 20 | Costume Design Studio | 6, 9, 70, 76 | | | 750 | 750 | | X | X | X | 20 students at sewing machines, lots of storage, large standing height tables, seating, large tackable wall, maniquins, dye room?, white board, AV, projector | |
| | | 21 | Design Studio | 5 | | 150 | 750 | 750 | | X | X | X | large "drafting" tables, seating, lots of storage, white board, AV, projector, electrical outlets (ceiling?), sink, drying racks, cutting mats | U Arrangment, similar to art spaces in AJ, maybe design a general design studio open to all the students, surrounded by professors' offices |
| | | 22 | Technology Lab | 4 | | 150 | 500 | 500 | | | X | | Comptuer lab, printer, plotter, scanner, 20 computers | |
| | | 23 | Hair/Wig Design Studio | 3, 9, 74 | | 100 | 750 | 1000 | | | X | X | 20 students, tables, chairs, storage, climate control, mirrors, head shelves, hat rack, projector | still a classroom, could be combined with makeup classroom too |
| | | 24 | Lecture Hall | | 2 | 1800 | 1800 | 2000 | | | X | | fixed seating, professor podium/table, sound proofing, acoustics, projector, screen, AV, bag storage, side space to break out | I would love for anyway that the stadium seating could transition to group pods. |
| | | 25 | Lighting Studio | | | 600 | 1200 | 1500 | | | X | | storage for color sheets, lots of open space, ceiling grid, seating, professor table, work table, backdrop | Lighting lab with full dimming system. Able to seat 20-35 comfortably and still access everything. |
| | | 26 | Makeup Lab | 3, 6, 70 | | 300 | 800 | 1000 | | | X | X | 25 students, sinks, storage, mirrors, makeup lights, counters, seats, sink | |
| | | 27 | Musical Theater Lab | 10, 28 | | 625 | 1000 | 1250 | | | X | | 25 students, 25 pianos, sound proof, acoustics, seats, professor table, projector, white board, AV | |
| | | 28 | Recording/Sound Studio | 27 | | 200 | 750 | 900 | | | X | | video and sound room, sound proof, acoustics, backdrop, recording equipment | |
| | | 29 | Practice Rooms | | 6 | - | 150 | 150 | | | | | mirrors, sound proofing, mirrors that have optional curtains, piano, recording technology | |
| | | 30 | Resource Room | | | 330 | 350 | 600 | | | X | X | books, computer, printer, scanner, table, task chairs, lounge chairs | |
| | | 31 | Restroom M | | | | | | X | | | X | urinals, toilets, lavatories, mirror, soap dispenser, towels/dryer, trash, partitions, stall accessories | |
| | | 32 | Restroom Single | | | | 150 | 150 | X | | | X | toilet, lavatory, mirror, soap dispenser, towels/dryer, trash, stall accessories | |
| | | 33 | Restroom W | | | | | | X | | | X | toilets, lavatories, mirror, soap dispenser, towels/dryer, trash, partitions, stall accessories | |

## THEATER INSTRUCTIONAL PROGRAM + CRITERIA

**Total Performance Square Feet** = 46,560
Strother = 6,500
Cave = 2,400

| Macro | | | Room Function | Adjacencies | Quantity | Existing SQ | SQ Needed | SQ Desired | Public? | Daylight? | Data? | Plumbing? | Notes | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Theater Department | Cave Theater | 34 | Cave Theater | 38, 48 | | 1300 | 2400 | 2400 | X | | | | 45' x 45' space, flexible black box, sound proofing, non-fixed seating, lighting grid, AV, | |
| | | 35 | Cave Theater Rehearsal | 36, 37 | 2 | 900 | 1200 | 1500 | | | | | AV, sound proofing, wood sprung floors, size of stage + | |
| | | 36 | Dressing Room M | 34, 35 | | | 300 | 300 | | | | X | counter, seats, mirrors, lighting, storage, dressing rack, shoe rack, audio from stage, shower, bathroom, bottle filler? | |
| | | 37 | Dressing Room W | 34, 35 | | | 300 | 300 | | | | X | counter, seats, mirrors, lighting, storage, dressing rack, shoe rack, audio from stage, shower, bathroom, bottle filler? | |
| | | 38 | Lobby | 34, 48 | | | 250 | 250 | X | X | | | ticket table, seating, wayfinding, tv screen | |
| | | 39 | Venue Storage | 34 | | | 300 | 300 | | | | | lots of storage, climate control | |
| | | | | | | | | | | | | | | |
| | Strother Theater | 40 | Strother Theater | 42, 48 | | 1700 | 5000 | 6500 | X | | | | 75' x 75' space, flexible black box, non-fixed seating, sound proofing , call booth above, needs to be accessible | |
| | | 41 | Strother Theater Rehearsal | 42, 43 | | 2000 | 2500 | 3000 | | | | | AV, sound proofing, wood sprung floors, size of stage + | |
| | | 42 | Lobby | 40 | | | 250 | 250 | X | X | | | ticket table, seating, wayfinding, tv screen | |
| | | 43 | Venue Storage | 40, 48 | | | 500 | 500 | | | | | lots of storage, climate control | |
| | | 44 | M Dressing Room | 40, 41 | | | 300 | 500 | | | | X | counter, seats, mirrors, lighting, storage, dressing rack, shoe rack, audio from stage, shower, bathroom, bottle filler? | |
| | | 45 | W Dressing Room | 40, 41 | | | 300 | 500 | | | | X | counter, seats, mirrors, lighting, storage, dressing rack, shoe rack, audio from stage, shower, bathroom, bottle filler? | |



**Total Performance Square Feet** = 46,560
University Theater = 12,500

| Macro | | | Room Function | Adjacencies | Quantity | Existing SQ | SQ Needed | SQ Desired | Public? | Daylight? | Data? | Plumbing? | Notes | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Theater Department | University Theater | 46 | Sound Storage | 47, 55 | | 100 | 900 | 900 | | | | | lots of storage, climate control, fly space | |
| | | 47 | Backstage | 50, 51, 52, 54, 61, 62, 64, 67 | | | | | | | | | | |
| | | 48 | Box Office | 38, 42, 49, 56, 99 | | 250 | 600 | 750 | X | | X | | 3 Managers, counter, cabinets, printer, computers (2), phone (2), audio from stage?, high seats | |
| | | 49 | Box Office Office | 48 | | 300 | 300 | 300 | | | X | | desk, task chair, 1-2 guest chairs, bookshelves/filling cabinet | |
| | | 50 | Dressing Room M | 47, 53, 70, 75 | | 470 | 1400 | 1600 | | | | X | 20 stations, mirrors, lights, seats, counter, storage, ventilation, dressing rack, shoe rack, audio from stage, shower, bathroom, bottle filler? | |
| | | 51 | Dressing Room Single | 47, 53, 70, 75 | 6 | | 200 | 200 | | | | X | shower, restroom, chair, mirror, lights, counter, storage, dressing rack, shoe rack, audio from stage, shower, bathroom, bottle filler? | |
| | | 52 | Dressing Room W | 47, 53, 70, 75 | | 470 | 1400 | 1600 | | | | X | 20 stations, mirrors, lights, seats, counter, storage, ventilation, dressing rack, shoe rack, audio from stage, shower, bathroom, bottle filler? | |
| | | 53 | Greenroom | 50, 51, 52 | | 970 | 1000 | 1400 | | | | | needs to be able to hold events, tables, chairs, lounge seating, audio from stage, tv screens, visual from stage? | |
| | | 54 | Kitchenette | 47, 69 | | 50 | 150 | 200 | | | | X | counter, base cabinets, shelves/wall cabinets, microwave(s), sink, fridge, dishwasher, coffee pot/kerurig | needs to be connnceted to prop shop |
| | | 55 | Light Storage | 46, 47 | | 680 | 680 | 680 | | | | | lots of storage, climate control, repair tools and storage | |
| | | 56 | Lobby | 61 | | 900 | 3500 | 4500 | X | X | | | based on 600 seats + bar space, audio from stage, guest chairs, soft seating, sound isolation from stage, small concession stand, displays, tv screen | |
| | | 57 | Call Booth | 55, 61 | | 80 | 150 | 150 | | | X | | call cues, needs to be able to see stage | |
| | | 58 | Restroom M | 56 | | 150 | 160 | 180 | X | | | X | urinals, toilets, lavatories, mirror, soap dispenser, towels/dryer, trash, partitions, stall accessories | |
| | | 59 | Restroom Single | 56 | | | 150 | 150 | X | | | X | toilet, lavatory, mirror, soap dispenser, towels/dryer, trash, stall accessories | |
| | | 60 | Restroom W | 56 | | 280 | 280 | 300 | X | | | X | toilets, lavatories, mirror, soap dispenser, towels/dryer, trash, partitions, stall accessories | |
| | | 61 | University Theater | 47, 56, 57 | | 6000 | 12,500 | 12,500 | X | | | | 600 capacity, wings, trap doors, stage, acoustics, sound proofing, fixed seats | |
| | | 62 | University Theater Rehearsal | 47, 50, 51, 52 | | 3500 | 4000 | 5000 | | | | | AV, sound proofing, wood sprung floors, size of stage + | |

**Total Support Square Feet** = 26,275
Scene Shop = 16,875
Costume Shop = 9,400

| Macro | | | Room Function | Adjacencies | Quantity | Existing SQ | SQ Needed | SQ Desired | Public? | Daylight? | Data? | Plumbing? | Notes | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Theater Department | Scene Shop | 63 | Scene Shop Office | 64 | | | 275 | 275 | | X | X | | desk, task chair, 1-2 guest chairs, bookshelves/filing cabinet | |
| | | 64 | Scene Shop | 47, 63, 65, 66, 67, 69 | | 1600 | 3600 | 4000 | | X | | X | ventilation, dust collection, wood working equipment, backdrop paint frame, large doors to outside and stage, material storage, safety glasses storage, lockers/cubbies, welding space | |
| | | 65 | Paint Shop | 64 | | | 2400 | 2400 | | | | X | ventilation, storage, backdrop paint frame, lockers/cubbies, sink | |
| | | 66 | Tool Storage | 64 | | 120 | 200 | 200 | | | | | secured lock up for tools, storage, shevles, hooks | |
| | | 67 | Storage | 47, 64 | | 1250 | 4200 | 6000 | | | | | lots of storage, climate control | |
| | | 68 | Prop Storage | 47, 69 | | 1310 | 2000 | 2000 | | | | | lots of storage, climate control | |
| | | 69 | Prop Storage | 54, 64, 68 | | | 2000 | 2000 | | | | X | needs to connect to kitchenette | |
| | | | | | | | | | | | | | | |
| | Costume Shop | 70 | Costume Shop | 20, 26, 50, 51, 52, 71, 72, 73, 74, 75, 76 | | 740 | 1800 | 2400 | | X | X | | lots of storage, large standing height tables for each active show, seating, large tackable wall, maniquins, storage/wardrobe for each show, dressing rooms, sewing machines, full length mirrors | |
| | | 71 | Office Director | 70 72 | | | 275 | 275 | | X | X | | desk, task chair, 1-2 guest chairs, bookshelves/filing cabinet | |
| | | 72 | Office Assn. Director | 70, 71 | | | 275 | 275 | | X | X | | desk, task chair, 1-2 guest chairs, bookshelves/filing cabinet | |
| | | 73 | Office Hair/Makeup Dir. | 70, 74 | | | 275 | 275 | | X | X | | desk, task chair, 1-2 guest chairs, bookshelves/filing cabinet | |
| | | 74 | Wig Shop | 23, 70, 73 | | | 500 | 500 | | | | | 20 students, tables, chairs, storage, climate control, mirrors, head shelves, hat rack | |
| | | 75 | Storage | 50, 51, 52, 53, 70 | | 2400 | 4200 | 5600 | | | | | lots of storage, climate control, moveable shelves, | |
| | | 76 | Laundry / Dye Room | 20, 70 | | 120 | 300 | 350 | | | | X | washer, dryer, ventilation, drying racks, storage, dye vat, sink | |

## THEATER SUPPORT PROGRAM + CRITERIA

**Total Office Square Feet** = 4,375

| Macro | | | Room Function | Adjacencies | Quantity | Existing SQ | SQ Needed | SQ Desired | Public? | Daylight? | Data? | Plumbing? | Notes | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dance Department | Office Space | 77 | Conference Room 15+ pp | 78, 81 | | | 250 | 300 | X | X | X | | table, 6-8 chairs, tv screen, video camera | |
| | | 78 | Faculty Office | 77, 87 | 13 | 150 | 150 | 150 | | X | X | | desk, task chair, 1-2 guest chairs, bookshelves/filing cabinet | |
| | | 79 | File Storage | 81 | | 40 | 100 | 200 | | | | | filing cabinets, bookshelves | |
| | | 80 | Kitchenette / Lounge | 78, 79, 83 | | 66 | 100 | 200 | | X | | X | counter, base cabinets, shelves/wall cabinets, microwave(s), sink, fridge, dishwasher, coffee pot/keruig | |
| | | 81 | Waiting/Reception Desk | 78, 79, 82 | | 315 | 400 | 500 | X | X | X | | desk, task chairguest chairs, coffee table, side table, lamp?, tack boards, tv screen | |
| | | 82 | Mail Room | 80, 81 | | 60 | 100 | 125 | | | | | mail slots, counter, printer/copier, cabinets, tack board | |
| | | 83 | Private Room | 80 | | | 150 | 150 | | | | X | sink, counter, small fridge, soft seating, cabinets | |
| | | 84 | Restroom M | | | | | | | | | X | urinals, toliets, lavatories, mirror, soap dispenser, towels/dryer, trash, partitions, stall accessories | |
| | | 85 | Restroom Single | | | | 150 | 150 | | | | X | toliets, lavatories, mirror, soap dispenser, towels/dryer, trash, partitions, stall accessories | |
| | | 86 | Restroom W | | | | | | | | | X | toliet, lavatorie, mirror, soap dispenser, towels/dryer, trash, stall accessories | |
| | | 87 | Warm Up Room | 78 | | 350 | 600 | 800 | | X | | | wood sprung floors, mirror wall, ventilation, barres, AV, cubbies, storage | |

## DANCE OFFICE PROGRAM + CRITERIA

**Total Instructional Square Feet** = 16,770

| Macro | | | Room Function | Adjacencies | Quantity | Existing SQ | SQ Needed | SQ Desired | Public? | Daylight? | Data? | Plumbing? | Notes | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dance Department | Instructional Space | 88 | Classroom | | 2 | 480 | 1000 | 1250 | | X | | | 20 students, flexible seating, storage, white board, projector, AV, professor podium/table, sprung floor | |
| | | 89 | Dance Studio | 90, 94 | 4 | 1200 | 3200 | 3200 | | X | | | wood sprung floors, mirror wall, ventilation, barres, AV, cubbies, storage, piano, projector, border space around dance floor 3-5', small exercise equipment | Maybe one large space that can be divided into smalled studios, needs windows for accreditation |
| | | 90 | Lockers / Cubbies | 89, 94 | 2 | 180 | 260 | 260 | | | | | lockers/cubbies, benches, mirrors | |
| | | 91 | Restroom M | | | | | | X | | | | urinals, toliets, lavatories, mirror, soap dispenser, towels/dryer, trash, partitions, stall accessories | |
| | | 92 | Restroom Single | | | | 150 | 150 | X | | | | toliets, lavatories, mirror, soap dispenser, towels/dryer, trash, partitions, stall accessories | |
| | | 93 | Restroom W | | | | | | X | | | | toliet, lavatorie, mirror, soap dispenser, towels/dryer, trash, stall accessories | |
| | | 94 | Warm Up Studio | 89, 90, 95 | | 350 | 600 | 800 | | X | | | wood sprung floors, mirror wall, ventilation, barres, AV, cubbies, storage | |

***Total* Performance Square Feet** = 8,380
Korsgaard = 6,400 sq.ft.

| Macro | | | Room Function | Adjacencies | Quantity | Existing SQ | SQ Needed | SQ Desired | Public? | Daylight? | Data? | Plumbing? | Notes | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dance Department | Korsgaard Studio | 95 | Backstage | 94, 100, 101, 102 | | | | | | | | | space used a a corridor during shows to parts of stage, storage | |
| | | 96 | Dressing Room M | 95, 100 | | | 300 | 500 | | | | X | 20 stations, mirrors, lights, seats, counter, storage, ventilation, dressing rack, shoe rack, audio from stage, shower, bathroom, bottle filler? | |
| | | 97 | Dressing Room Single | 95, 100 | | | 150 | 150 | | | | X | shower, restroom, chair, mirror, lights, counter, storage, dressing rack, shoe rack, audio from stage, shower, bathroom, bottle filler? | |
| | | 98 | Dressing Room W | 95, 100 | | | 300 | 500 | | | | X | 20 stations, mirrors, lights, seats, counter, storage, ventilation, dressing rack, shoe rack, audio from stage, shower, bathroom, bottle filler? | |
| | | 99 | Lobby | 48, 100 | | | 250 | 250 | X | X | | | based on 600 seats + bar space, audio from stage, guest chairs, soft seating, sound isolation from stage, small concession stand, displays, tv screen | |
| | | 100 | Performance Space | 95, 99 | | 2800 | 5000 | 6400 | X | X | | | 80' x 80', wood sprung floor, curtains, ventilation, non-fixed seating, AV | think about space that will be lost to circulation, look into Norton Specialized Performance Floor and |
| | | 101 | Sound Room | 95 | | 60 | 75 | 80 | | | | | AV systems, able to see the performance space, seats and counter | |
| | | 102 | Storage | 95 | | 400 | 480 | 500 | | | | | lots of storage, climate control | |

# DANCE PERFORMANCE PROGRAM + CRITERIA

## Theater Desired Square Feet

**Office Space** = 12,495

**Instructional Spac**e = 20,500

***Total* Performance Space** = 46,560
Strother = 6,500
Cave = 2,400
University Theater = 12,500

***Total* Support Space** = 26,275
Scene Shop = 16,875
Costume Shop = 9,400

**Total = 105,830 sqft.**

## Dance Desired Square Feet

**Office Space** = 4,375

**Instructional Space** = 16,770

***Total* Performance Space** = 8,380
Korsgaard = 6,400 sq.ft.

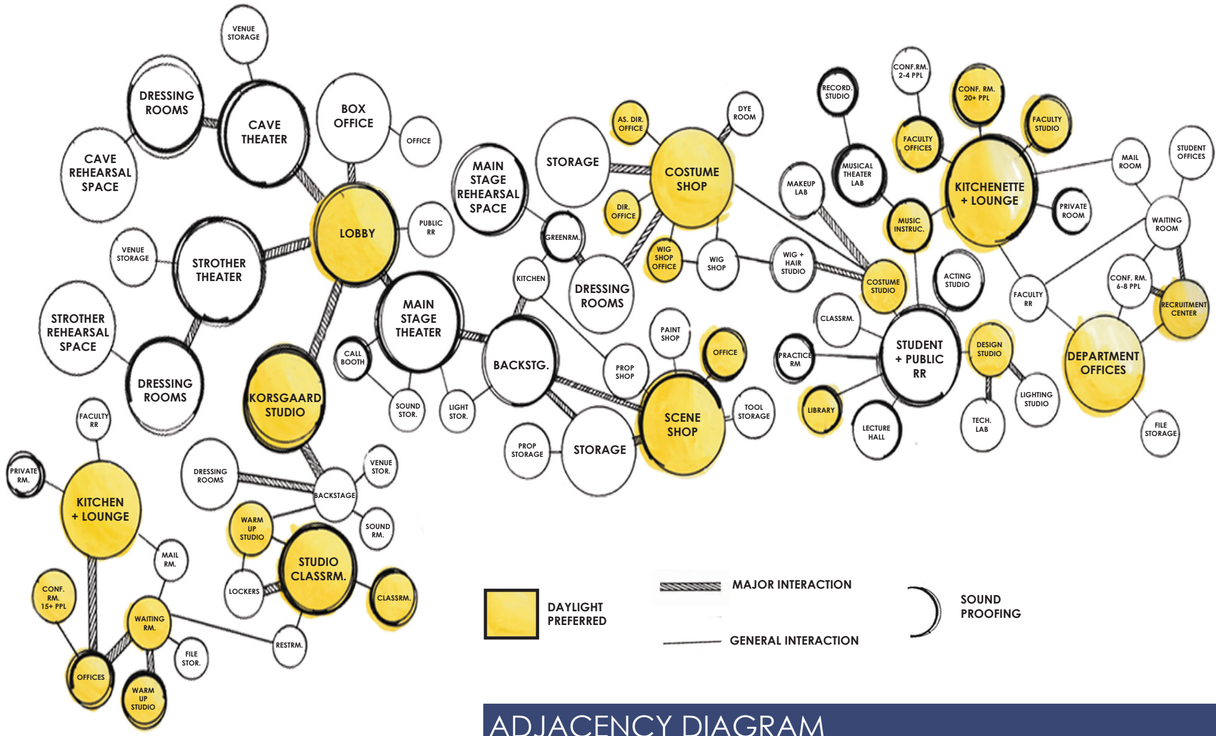
**Total = 29,525 sqft.**

**Total Available Square Feet 178,534 sqft.**

**Desired Square Feet 135,355 sqft. + Circulation 20% 27,071 sqft. = Total Square Feet Needed 162,426 sqft.**

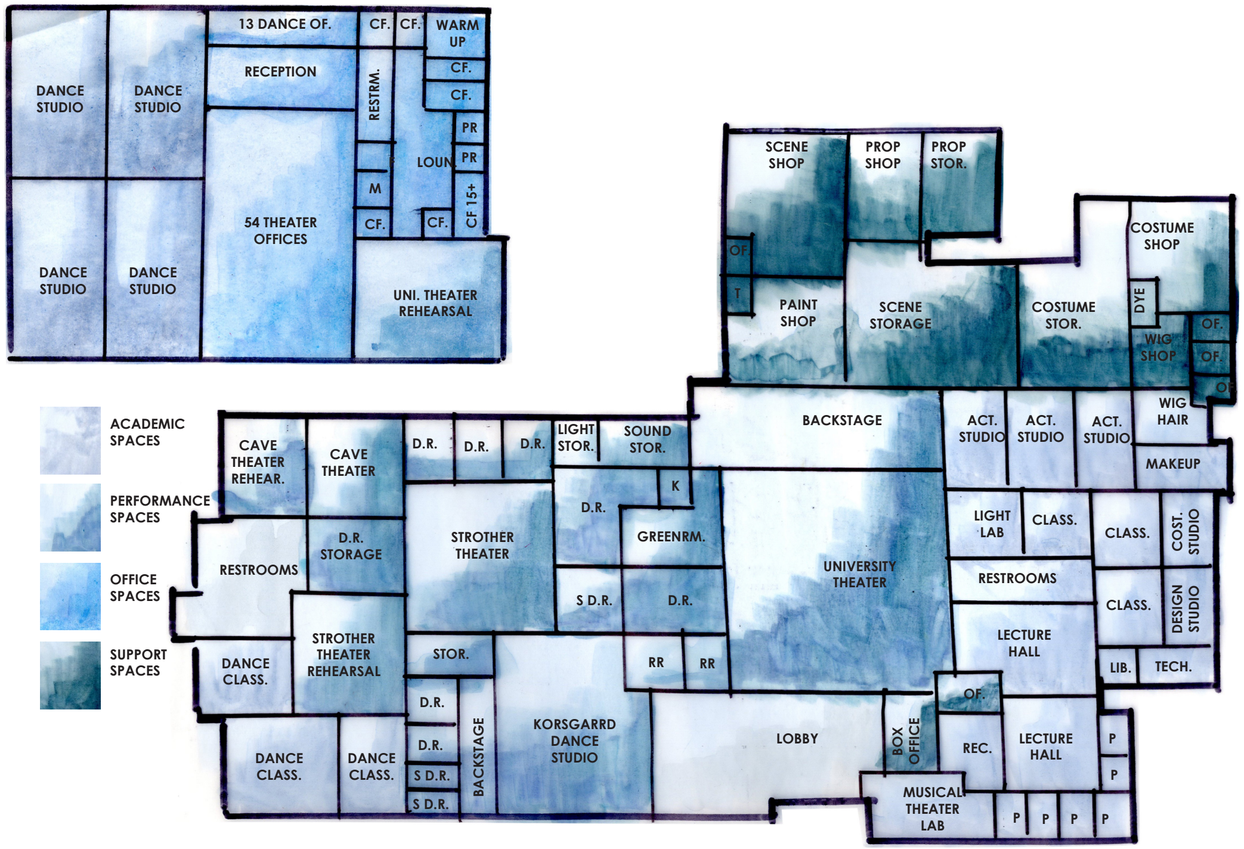
# SUMMARY

# ADJACENCIES

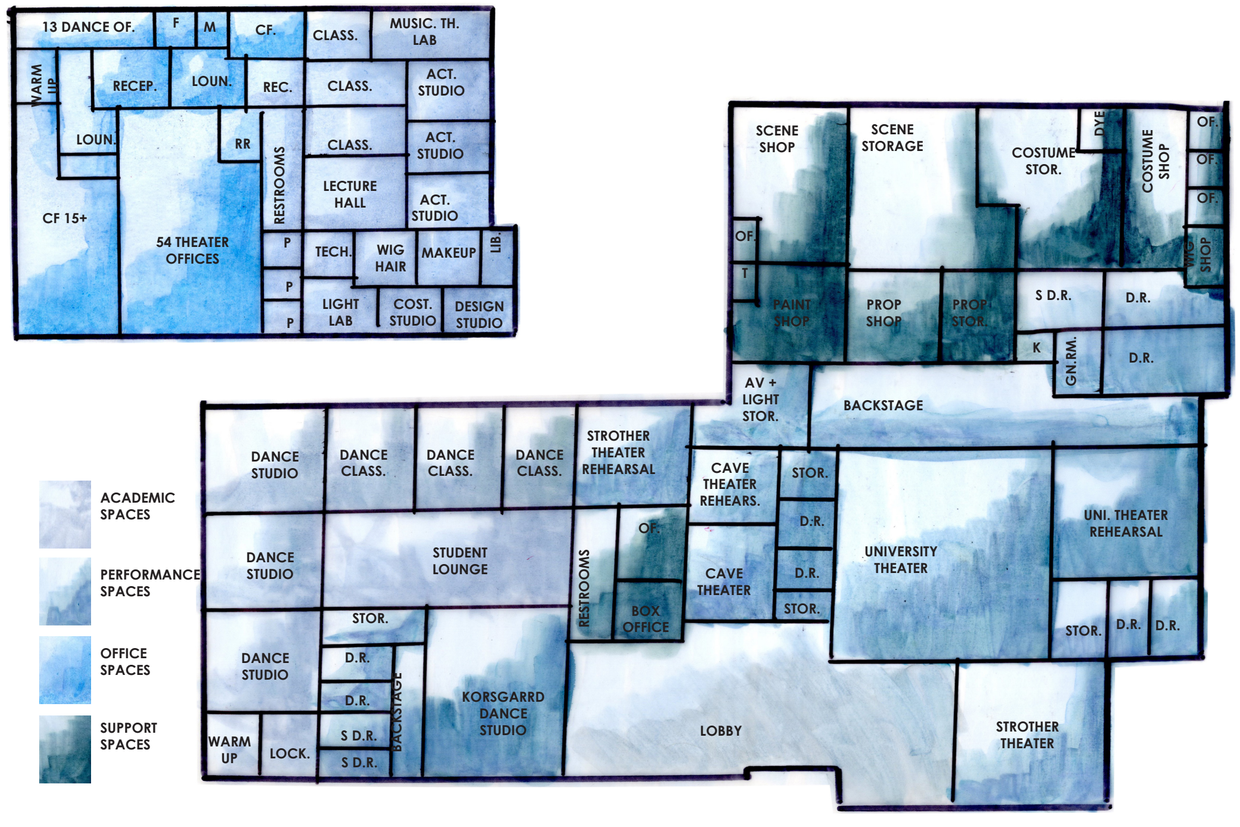



ADJACENCY DIAGRAM

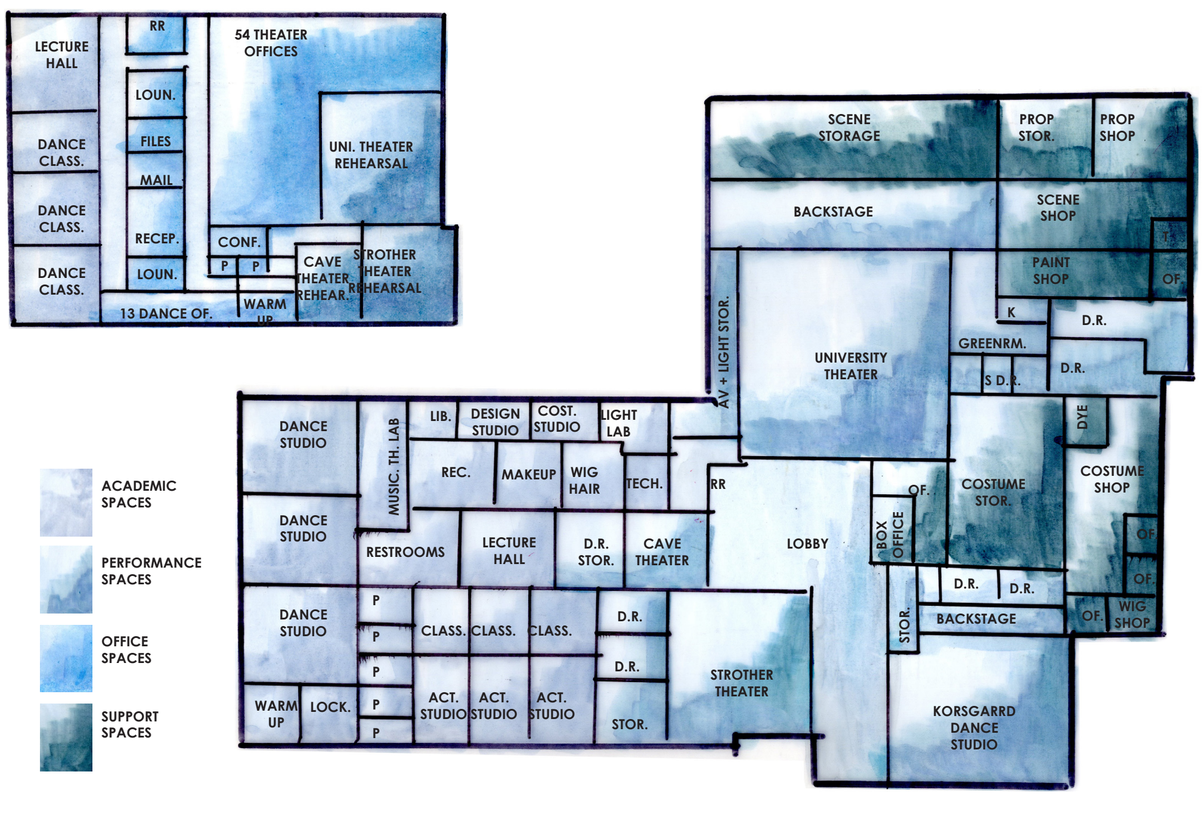
# BLOCK DIA.




OPTION: 1




OPTION: 2




OPTION: 3

# DRAFT PLANS

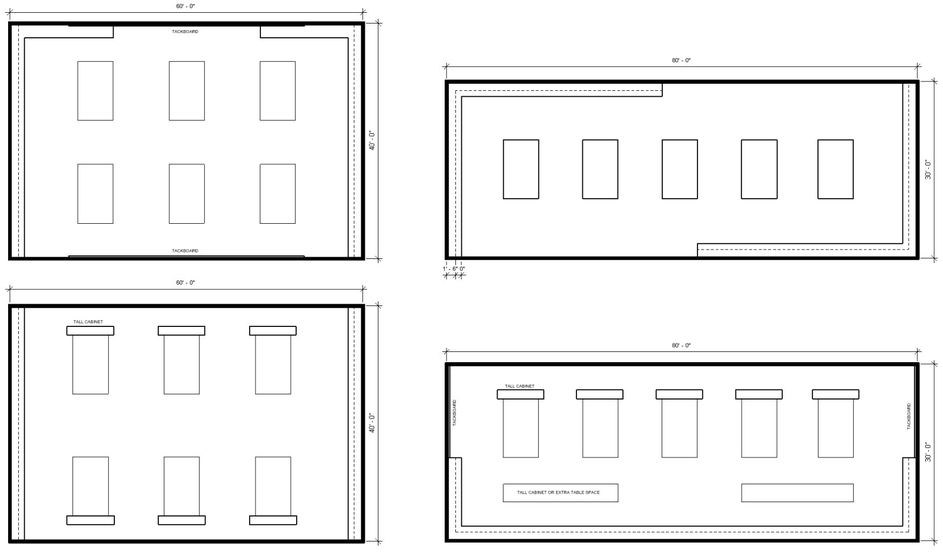
OPTION: 4

LOUNGE SPACES
FLEXIBLE SPACES
DIVIDE BETWEEN PERFORMANCE + ACADEMIC
TWO STORY ATRIUM
CONF.
FILES + MAIL
THEATER OFFICES
UNI. THEATER REHEARSAL
RECEP.
CF
STROTHER THEATER REHEARSAL
STUDENT OF.
THEATER OFFICES
CAVE THEATER REHEAR.
WARM UP
RECUR.
THEATER OFFICES
SCENE SHOP
PAINT SHOP
PROP SHOP
BACKSTAGE
GREEN RM.
AV + LIGHT STOR.
UNIVERSITY THEATER
COSTUME SHOP
DESIGN STUDIOS
COST. STUDIO
HAIR + MAKEUP
LIGHT LAB
MUSIC. LAB
TECH
CLASS.
LIB.
DANCE STUDIO
WARM UP
REC STUDIO
LOUNGE
VID. STUDIO
LECTURE HALL
RESTRMS.
DANCE CLASS.
ACT. STUDIO
CAVE THEATER
KORSGARRD DANCE STUDIO
STROTHER THEATER
LOBBY
BOX OFFICE
BACKSTAGE
STOR.
???
OPTION: A
LIB.
THEATER OFFICES
LOUNGE
MUSIC. LAB
ACT. STUDIO
CONF.
MAIL
RECEP.
STUDE. OF.
DANCE CLASS.
RECUR.
WARM UP
LOCKERS
LECTURE HALL
HAIR + MAKEUP
COST. STUDIO
DESIGN
TECH.
REC STUDIO
CAVE THEATER REHEAR.
STROTHER THEATER REHEARSAL
STROTHER THEATER
UNIVERSITY THEATER
LOBBY
UNI. THEATER REHEARSAL
CAVE THEATER
SCENE SHOP
SCENE STORAGE
COSTUME STORAGE
COSTUME SHOP
PAINT SHOP
PROP SHOP
PROP STOR.
GREEN RM.
AV + LIGHT STOR.
LIGHT LAB
BACKSTAGE
BOX OFFICE
KORSGARRD DANCE STUDIO
OPTION: B

# PROTOTYPICALS

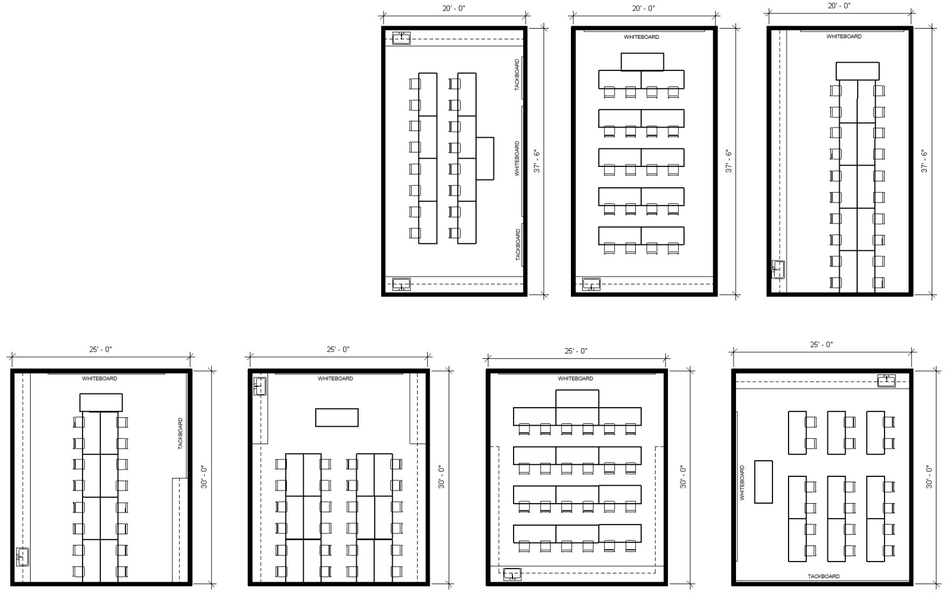
OPTION: C

COSTUME SHOP - 2400 SQ




## COSTUME SHOP PROTOTYPICALS - 2400 SQFT

DESIGN STUDIO - 750 SQ

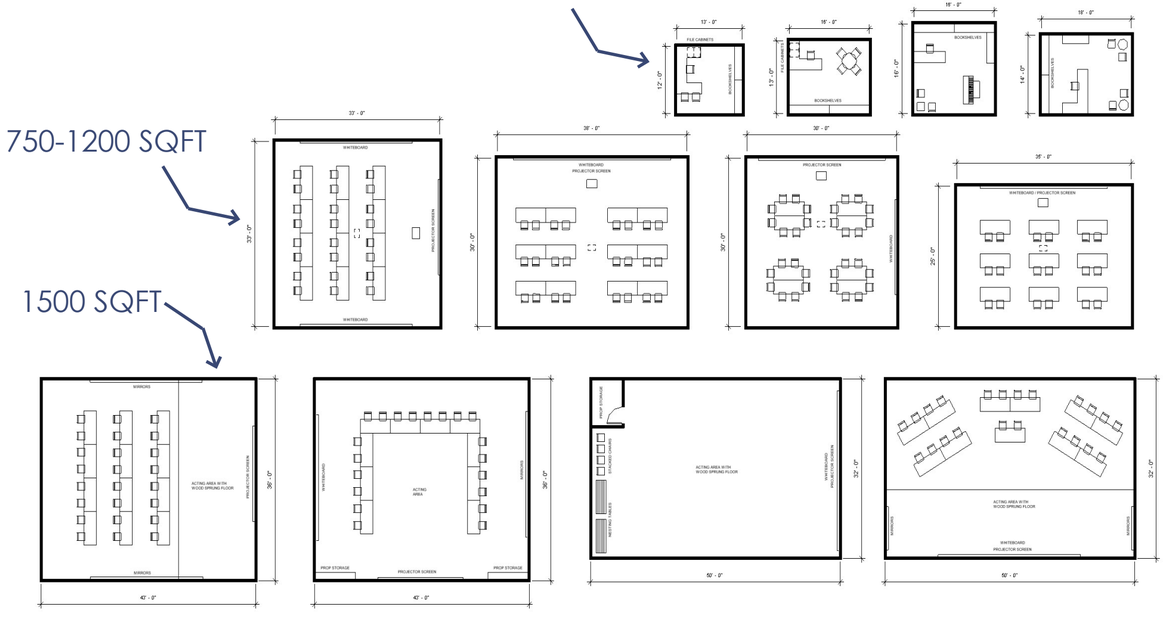



## DESIGN STUDIO PROTOTYPICALS - 750 SQFT

150-250 SQFT

750-1200 SQFT

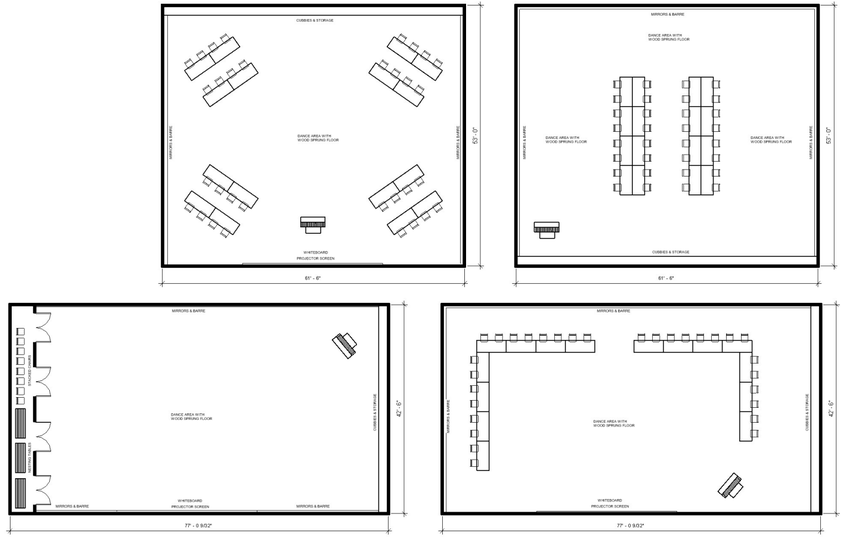
1500 SQFT




## CLASSROOM + OFFICE PROTOTYPICALS

## 32 STUDENT MAX. AS PER NASD CODE

DANCE STUDIO CLASSROOMS - 3200SF (32 STUDENT MAX AS PER NASD CODE)




## DANCE STUDIO PROTOTYPICALS - 3200 SQFT

# LOCALIZING

## OPTION #2

SITE ANALYSIS

BUILDING SHELL

CRITERIA MATRIX

## FOOD + DRINK

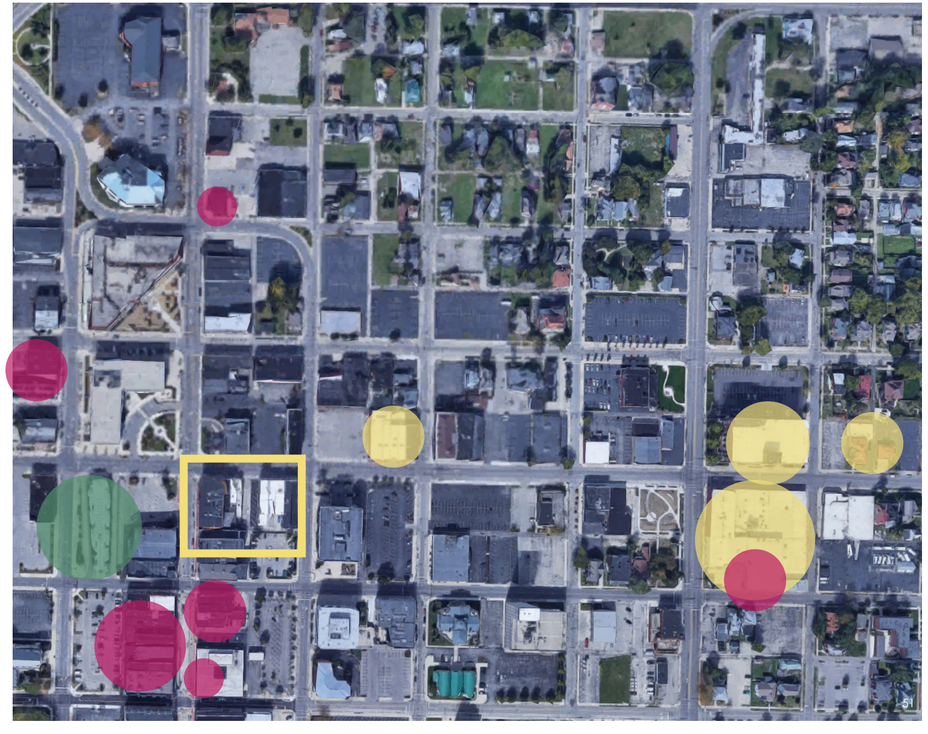
The Guardian Brewing Company
Subway Restaurant
Savage's Ale House
The Barking Cow
Vera May's Bistro
Casa Del Sol
Harmony Cafe
Heorot

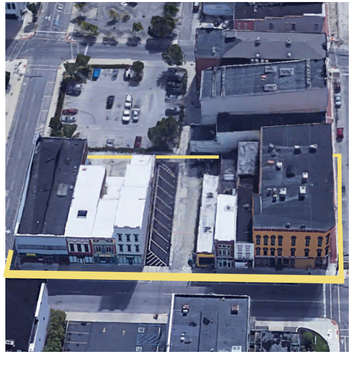
## ART + CULTURE

Cornerstone Center for the Arts
Muncie Arts and Culture Council
Muncie Civic Theater
MadJax Muncie

## TRANSPORTATION

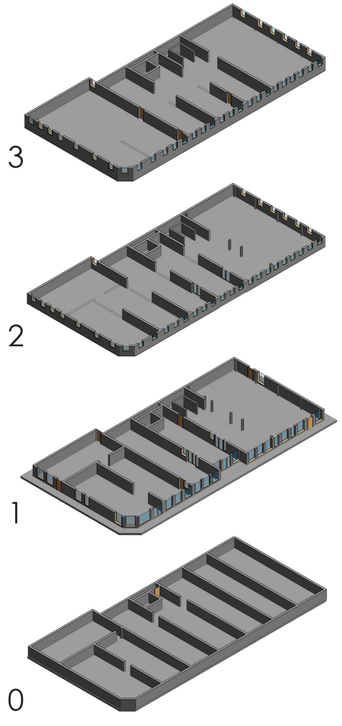
Muncie Indiana Transit System [MITS]





"The arts can contribute to changing a city's image. By contributing to the livability of cities, towns and villages, the arts help to attract investors. "

SITE ANALYSIS - 103 E MAIN ST. PATTERSON BLOCK



51

51

c. 1893
52

c. 1986
52

## The Patterson Block, c.1880

The Italianate style Patterson Block is a three-story rectangular block, constructed of brick, with a clipped northwest. Fine craftsmanship and detailing is evident throughout the building, particularly in the window treatment of the upper two stories and the massive, bracketed cornice.

The seven storefronts have housed a variety of business reflective of a growing community's want and needs including a grocery store, clothing stores, a barber shop, a jeweler, and a saloon. The building is also noted for housing a few local "firsts" - the first local telephone exchange and the first Muncie police station.

The Patterson Block is the second largest pre-1900 building in the Walnut Street Historic District.

Arthur Patterson and James Boyce were two of the group of business leaders whose combined forces attracted industrial concerns to the city as well as capitalized on the resulting prosperity.

Robert Patterson was born on March 28th, 1843 in Muncie. He served in the Civil War as part of the famed Iron Brigade and fought in fourteen major battles, including Antietam and Gettysburg. After the war, Patterson worked in a clothing store, as a state legislature clerk, a postal clerk, a postmaster, a custodian of the county courthouse and as a pension attorney. He founded the Patterson Glass Company in Yorktown, to produce his patented jar called the Leader Jar. After this company failed, he returned to being a pension attorney and politician. He was elected Clerk of the County in 1902 and served for four years.

Patterson died on September 29th, 1916, and the building across from the courthouse in Muncie where he had his office still goes by his name.

# 103 E MAIN ST. BUILDING

(Cole & Vincent, n.d.) (Ball State University Archives, 2009)

# CRITERIA MATRIX

**Total Performance Square Feet** = 46,560
Strother = 6,500
Cave = 2,400

| Macro | | | Room Function | Adjacencies | Quantity | Existing SQ | SQ Needed | SQ Desired | Public? | Daylight? | Data? | Plumbing? | Notes | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Theater Department | Cave Theater | 34 | Cave Theater | 38, 48 | | 1300 | 2400 | 2400 | X | | | | 45' x 45' space, flexible black box, sound proofing, non-fixed seating, lighting grid, AV, | |
| | | 35 | Cave Theater Rehearsal | 36, 37 | 2 | 900 | 1200 | 1500 | | | | | AV, sound proofing, wood sprung floors, size of stage + | |
| | | 36 | Dressing Room M | 34, 35 | | | 300 | 300 | | | | X | counter, seats, mirrors, lighting, storage, dressing rack, shoe rack, audio from stage, shower, bathroom, bottle filler? | |
| | | 37 | Dressing Room W | 34, 35 | | | 300 | 300 | | | | X | counter, seats, mirrors, lighting, storage, dressing rack, shoe rack, audio from stage, shower, bathroom, bottle filler? | |
| | | 38 | Lobby | 34, 48 | | | 250 | 250 | X | X | | | ticket table, seating, wayfinding, tv screen | |
| | | 39 | Venue Storage | 34 | | | 300 | 300 | | | | | lots of storage, climate control | |
| | | | | | | | | | | | | | | |
| | Strother Theater | 40 | Strother Theater | 42, 48 | | 1700 | 5000 | 6500 | X | | | | 75' x 75' space, flexible black box, non-fixed seating, sound proofing , call booth above, needs to be accessible | |
| | | 41 | Strother Theater Rehearsal | 42, 43 | | 2000 | 2500 | 3000 | | | | | AV, sound proofing, wood sprung floors, size of stage + | |
| | | 42 | Lobby | 40 | | | 250 | 250 | X | X | | | ticket table, seating, wayfinding, tv screen | |
| | | 43 | Venue Storage | 40, 48 | | | 500 | 500 | | | | | lots of storage, climate control | |
| | | 44 | M Dressing Room | 40, 41 | | | 300 | 500 | | | | X | counter, seats, mirrors, lighting, storage, dressing rack, shoe rack, audio from stage, shower, bathroom, bottle filler? | |
| | | 45 | W Dressing Room | 40, 41 | | | 300 | 500 | | | | X | counter, seats, mirrors, lighting, storage, dressing rack, shoe rack, audio from stage, shower, bathroom, bottle filler? | |

THEATER PERFORMANCE PROGRAM + CRITERIA

**Total Performance Square Feet** = 46,560
University Theater = 12,500

| Macro | | | Room Function | Adjacencies | Quantity | Existing SQ | SQ Needed | SQ Desired | Public? | Daylight? | Data? | Plumbing? | Notes | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Theater Department | University Theater | 46 | Sound Storage | 47, 55 | | 100 | 900 | 900 | | | | | lots of storage, climate control, fly space | |
| | | 47 | Backstage | 50, 51, 52, 54, 61, 62, 64, 67 | | | | | | | | | | |
| | | 48 | Box Office | 38, 42, 49, 56, 99 | | 250 | 600 | 750 | X | | X | | 3 Managers, counter, cabinets, printer, computers (2), phone (2), audio from stage?, high seats | |
| | | 49 | Box Office Office | 48 | | 300 | 300 | 300 | | | X | | desk, task chair, 1-2 guest chairs, bookshelves/filing cabinet | |
| | | 50 | Dressing Room M | 47, 53, 70, 75 | | 470 | 1400 | 1600 | | | | X | 20 stations, mirrors, lights, seats, counter, storage, ventilation, dressing rack, shoe rack, audio from stage, shower, bathroom, bottle filler? | |
| | | 51 | Dressing Room Single | 47, 53, 70, 75 | 6 | | 200 | 200 | | | | X | shower, restroom, chair, mirror, lights, counter, storage, dressing rack, shoe rack, audio from stage, shower, bathroom, bottle filler? | |
| | | 52 | Dressing Room W | 47, 53, 70, 75 | | 470 | 1400 | 1600 | | | | X | 20 stations, mirrors, lights, seats, counter, storage, ventilation, dressing rack, shoe rack, audio from stage, shower, bathroom, bottle filler? | |
| | | 53 | Greenroom | 50, 51, 52 | | 970 | 1000 | 1400 | | | | | needs to be able to hold events, tables, chairs, lounge seating, audio from stage, tv screens, visual from stage? | |
| | | 54 | Kitchenette | 47, 69 | | 50 | 150 | 200 | | | | X | counter, base cabinets, shelves/wall cabinets, microwave(s), sink, fridge, dishwasher, coffee pot/keruig | needs to be connnceted to prop shop |
| | | 55 | Light Storage | 46, 47 | | 680 | 680 | 680 | | | | | lots of storage, climate control, repair tools and storage | |
| | | 56 | Lobby | 61 | | 900 | 3500 | 4500 | X | X | | | based on 600 seats + bar space, audio from stage, guest chairs, soft seating, sound isolation from stage, small concession stand, displays, tv screen | |
| | | 57 | Call Booth | 55, 61 | | 80 | 150 | 150 | | | X | | call cues, needs to be able to see stage | |
| | | 58 | Restroom M | 56 | | 150 | 160 | 180 | X | | | X | urinals, toilets, lavatories, mirror, soap dispenser, towels/dryer, trash, partitions, stall accessories | |
| | | 59 | Restroom Single | 56 | | | 150 | 150 | X | | | X | toilet, lavatory, mirror, soap dispenser, towels/dryer, trash, stall accessories | |
| | | 60 | Restroom W | 56 | | 280 | 280 | 300 | X | | | X | toilets, lavatories, mirror, soap dispenser, towels/dryer, trash, partitions, stall accessories | |
| | | 61 | University Theater | 47, 56, 57 | | 6000 | 12,500 | 12,500 | X | | | | 600 capacity, wings, trap doors, stage, acoustics, sound proofing, fixed seats | |
| | | 62 | University Theater Reheansal | 47, 50, 51, 52 | | 3500 | 4000 | 5000 | | | | | AV, sound proofing, wood sprung floors, size of stage + | |

## THEATER PERFORMANCE PROGRAM + CRITERIA

**Total Support Square Feet** = 26,275
Scene Shop = 16,875
Costume Shop = 9,400

| Macro | | | Room Function | Adjacencies | Quantity | Existing SQ | SQ Needed | SQ Desired | Public? | Daylight? | Data? | Plumbing? | Notes | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Theater Department | Scene Shop | 63 | Scene Shop Office | 64 | | | 275 | 275 | | X | X | | desk, task chair, 1-2 guest chairs, bookshelves/filing cabinet | |
| | | 64 | Scene Shop | 47, 63, 65, 66, 67, 69 | | 1600 | 3600 | 4000 | | X | | X | ventilation, dust collection, wood working equipment, backdrop paint frame, large doors to outside and stage, material storage, safety glasses storage, lockers/cubbies, welding space | |
| | | 65 | Paint Shop | 64 | | | 2400 | 2400 | | | | X | ventilation, storage, backdrop paint frame, lockers/cubbies, sink | |
| | | 66 | Tool Storage | 64 | | 120 | 200 | 200 | | | | | secured lock up for tools, storage, shevles, hooks | |
| | | 67 | Storage | 47, 64 | | 1250 | 4200 | 6000 | | | | | lots of storage, climate control | |
| | | 68 | Prop Storage | 47, 69 | | 1310 | 2000 | 2000 | | | | | lots of storage, climate control | |
| | | 69 | Prop Shop | 54, 64, 68 | | | 2000 | 2000 | | | | X | needs to connect to kitchenette | |
| | | | | | | | | | | | | | | |
| | Costume Shop | 70 | Costume Shop | 20, 26, 50, 51, 52, 71, 72, 73, 74, 75, 76 | | 740 | 1800 | 2400 | | X | X | | lots of storage, large standing height tables for each active show, seating, large tackable wall, maniquins, storage/wardrobe for each show, dressing rooms, sewing machines, full length mirrors | |
| | | 71 | Office Director | 70 72 | | | 275 | 275 | | X | X | | desk, task chair, 1-2 guest chairs, bookshelves/filing cabinet | |
| | | 72 | Office Assn. Director | 70, 71 | | | 275 | 275 | | X | X | | desk, task chair, 1-2 guest chairs, bookshelves/filing cabinet | |
| | | 73 | Office Hair/Makeup Dir. | 70, 74 | | | 275 | 275 | | X | X | | desk, task chair, 1-2 guest chairs, bookshelves/filing cabinet | |
| | | 74 | Wig Shop | 23, 70, 73 | | | 500 | 500 | | | | | 20 students, tables, chairs, storage, climate control, mirrors, head shelves, hat rack | |
| | | 75 | Storage | 50, 51, 52, 53, 70 | | 2400 | 4200 | 5600 | | | | | lots of storage, climate control, moveable shelves, | |
| | | 76 | Laundry / Dye Room | 20, 70 | | 120 | 300 | 350 | | | | X | washer, dryer, ventilation, drying racks, storage, dye vat, sink | |

## THEATER SUPPORT PROGRAM + CRITERIA

**Total Performance Square Feet** = 8,380
Korsgaard = 6,400 sq.ft.

| Macro | | | Room Function | Adjacencies | Quantity | Existing SQ | SQ Needed | SQ Desired | Public? | Daylight? | Data? | Plumbing? | Notes | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dance Department | Korsgaard Studio | 95 | Backstage | 94, 100, 101, 102 | | | | | | | | | space used a a corridor during shows to parts of stage, storage | |
| | | 96 | Dressing Room M | 95, 100 | | | 300 | 500 | | | | X | 20 stations, mirrors, lights, seats, counter, storage, ventilation, dressing rack, shoe rack, audio from stage, shower, bathroom, bottle filler? | |
| | | 97 | Dressing Room Single | 95, 100 | | | 150 | 150 | | | | X | shower, restroom, chair, mirror, lights, counter, storage, dressing rack, shoe rack, audio from stage, shower, bathroom, bottle filler? | |
| | | 98 | Dressing Room W | 95, 100 | | | 300 | 500 | | | | X | 20 stations, mirrors, lights, seats, counter, storage, ventilation, dressing rack, shoe rack, audio from stage, shower, bathroom, bottle filler? | |
| | | 99 | Lobby | 48, 100 | | | 250 | 250 | X | X | | | based on 600 seats + bar space, audio from stage, guest chairs, soft seating, sound isolation from stage, small concession stand, displays, tv screen | |
| | | 100 | Performance Space | 95, 99 | | 2800 | 5000 | 6400 | X | X | | | 80' x 80', wood sprung floor, curtains, ventilation, non-fixed seating, AV | think about space that will be lost to circulation, look into Norton Specialized Performance Floor and |
| | | 101 | Sound Room | 95 | | 60 | 75 | 80 | | | | | AV systems, able to see the performance space, seats and counter | |
| | | 102 | Storage | 95 | | 400 | 480 | 500 | | | | | lots of storage, climate control | |

# DANCE PERFORMANCE PROGRAM + CRITERIA

## Theater Desired Square Feet

***Total* Performance Space** = 72,460
Strother = 17,500
Cave = 7,200
University Theater = 47,760

***Total* Support Space** = 26,550
Scene Shop = 16,875
Costume Shop = 9,675

**Total = 99,010 sqft.**

## Dance Desired Square Feet

***Total* Performance Space** = 14,930
Korsgaard = 14,930

**Total = 14,930 sqft.**

## Existing Available Square Feet
**30,752 sqft.**

## Desired Square Feet
**113,940 sqft**
**+**
**Circulation 20%**
**22,788 sqft.**
**=**
**Total Square Feet Desired**
**136,728 sqft.**

# SUMMARY

# CONCEPTUALIZING

CONCEPT ANALYSIS

CONCEPTUAL DIAGRAMS

CONCEPT DESCRIPTION

BRAND STRATEGY

# ANALYSIS

## Connections

Connecting to community, campus, student to student, student to faculty, performer to audience

## Community

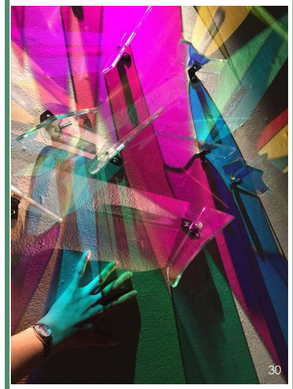
A feeling of fellowship with others, as a result of sharing common attitudes, interests, and goals.

A similarity or identity.

## Spotlight

A lamp projecting a narrow, intense beam of light directly on to a place or person, especially a performer on stage.

Intense scrutiny or public attention.




## Kaleidoscope

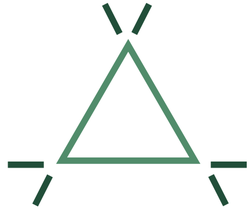
A constantly changing pattern or sequence of objects or elements.

“The dancers moved in a kaleidoscope of color”

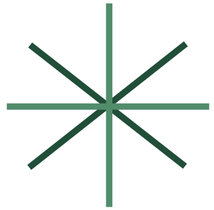
# DIAGRAMS

A kaleidoscope is a cylinder tube with three mirrors facing each other. The type of fractal created depends on the angle of the mirrors.

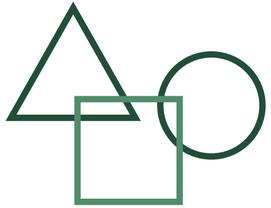
Fractals are created by similar patterns recurring at progressively smaller scales. A kaleidoscope is created using three mirrors facing each other.



The three mirrors in a kaleidoscope create a triangle. The light reflecting off these mirrors and entering your eye is what creates the colorful fractals.



Light is an important component of a kaleidoscope. Also, the user sees the image at the end in pieces, cracked and distorted into smaller geometries.



The image created by a kaleidoscope appears as small, colorful geometries that, together, make a much larger mosaic. As the kaleidoscope is turned, the image changes and evolves. Parts of the mosaic seem to disappear, while others appear to take their place and create a new mosaic.

## PARTI DIAGRAMS - KALEIDOSCOPE

## Kaleidoscope

Dynamic, Evolving
Simple and Complex Shapes
Connections

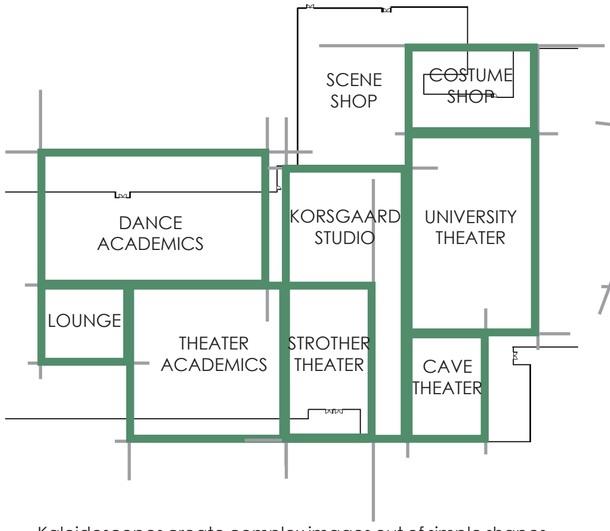
3 Programs - 3 Shapes
9 Degrees Total - 9 Lines

**Production**
Building Blocks, 4 Degrees

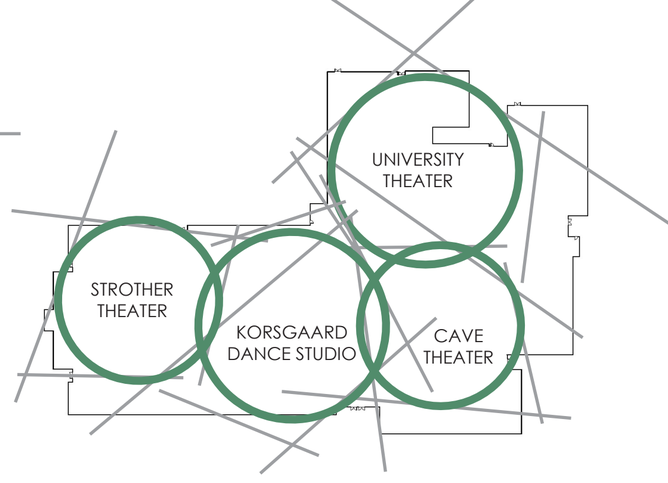
**Dance**
Movement, 2 Degrees

**Theater**
Dynamic, 3 Degrees

# PARTI DIAGRAM DEVELOPMENT

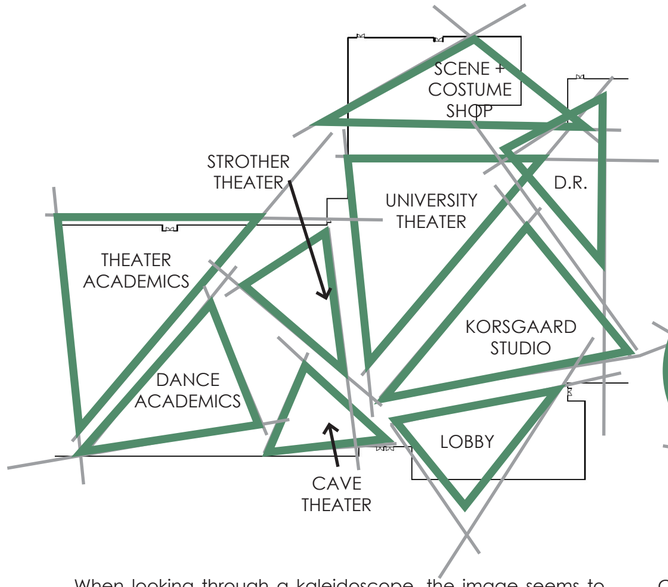



Kaleidoscopes create complex images out of simple shapes. Following this idea, this plan takes a simple shapes and add complexity through overlapping and connecting. Using the rectangle, one of the three shapes used to represent the programs, the space is divided into the major functions. Where the shapes overlap or connect implies shared space or circulation.

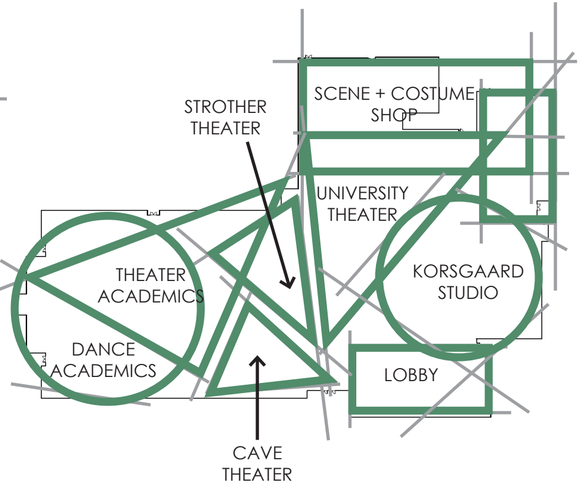



Thinking a little more “big picture”, this plan shows how each performance space could interact with each other. Using the circle, one of the three shapes used to represent the programs, the space is divided into the 4 main performance spaces. Where the circles overlap represents a lobby or lounge that is shared between them. This creates space for people to interact and embrace the innate diversity in the arts.

# CONCEPTUAL FLOOR PLANS - OPTION #1



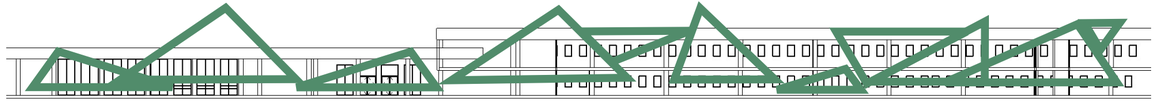

When looking through a kaleidoscope, the image seems to "crack" and break into small pieces that evolve to create new mosaics. This plan uses the triangle, one of the three shapes used to represent the programs, to represent this mosaic quality. Each triangle denotes a main space, while the space in between shows possible circulation paths. Some triangles overlap, signifying how the spaces may interact.

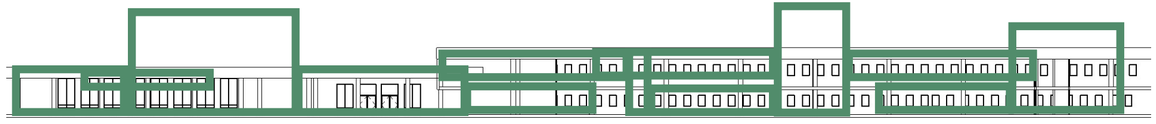


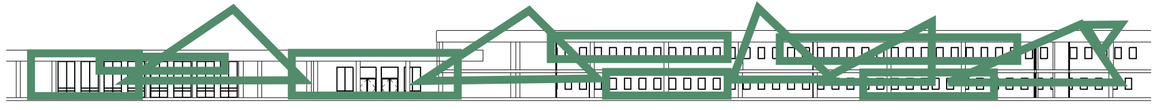

Combining all three shapes - rectangle, circle and triangle - this plan uses the specific shape to represent each space's function. The rectangles denote where the support spaces are, the triangles symbolize the main theater spaces and likewise, the circles mark the main dance spaces. Many of these spaces have the possibility to interact with each other, which can be seen in the overlapping of the shapes. The space in between shows the main circulation.

## CONCEPTUAL FLOOR PLANS - OPTION #1

Each stacking plan utilizes one or more of the three simple shapes used in the concept parti diagrams. These plans are used to analyze how spaces can interact with each other on a plan other than horizontal. Some spaces may take advantage of both levels, while some may just need connections such as stairs or elevators.







## CONCEPTUAL STACKING PLANS - OPTION #1

# DESCRIPTION

***Kaleidoscope*** is derived from the Ancient Greek work *kalos* "beautiful, beauty", *eidos* "that which is seen, form or shape" and *skopeo* "to look, to examine". Thus kaleidoscope, ***an observation of beautiful forms***. Kaleidoscope is also believed to symbolize ***the ability to see yourself in the bigger scope of life*** and connect to the meaning of it. ***The same could be said of theater and dance***. Beautiful forms and movement. Complex and simple connections to a bigger picture. The new Department of Theater and Dance Performing Arts Center will draw inspiration from aspects of a kaleidoscope. The ***movement*** and ***always evolving*** qualities of a kaleidoscope will be suggested by designing **rooms that can flex in both size and function**. The ***dynamic*** nature of a kaleidoscope will be represented within the space by ensuring every patron/student/faculty member is ***intrigued and surprised*** by the space. This will be done through the ***careful consideration for sightlines*** and the ***addition of beautiful art pieces*** throughout the site. Aesthetically, ***bright colors, geometric shapes and transparent materials*** will also be used to create an exciting atmosphere The transparent materials will also ***take advantage of natural light*** – light being an integral part of a kaleidoscope – and ***foster a deeper sense of connectivity*** for everyone.

KALEIDOSCOPE CONCEPT STATEMENT

## Goals

"improve the identity of the department"
"give the department character"

Diverse
Evolving
Dynamic
Engaging
Fun
Lively
Entertaining

"integrate new facility with the community and campus"

Connectivity
Diversity
Engagement

Based on surveys and interviews with the students and faculty, the department's current facilities are regarded as bland and boring. In contrast, the students and faculty themselves are creative and engaging. Their character should be reflected within their space. The dynamic image created by a kaleidoscope lends itself to inspiring a fun atmosphere. Besides the fun colors and pattern, consider the mosaic quality of the image, each small shape comes together to create a bigger and more complex pattern. This can be seen within a theatrical or dance performance as well. Each performer is an individual, but they work together to create a beautiful and thought-provoking show.

## Background

The Theater and Dance Department is the fastest growing department on campus, and is beginning to earn national recognition

Dynamic
Evolving

The performing arts are also known to be extremely diverse. Not only are they full of people from all walks of life, but the shows themselves delve into societal issues and cultural differences. This diversity can also be seen in the many colors, shapes and patterns within the image created by the kaleidescope. This diversity can also be seen within the department, through both the students/faculty and the shows they perform. Additionally, this diversity will only grow with the department.

As the department's notoriety increases, their pool of applicants continues to grow

Diversity
Connections
Complexity

## Site Context

Needs to connect the two sides of campus, to create a more complex campus footprint.

Becomes a focal point of the main entrance to campus.

Evolving
Dynamic
Connected
Complex

The site was originally used for a high school, then a middle school for most of its history. Now, while similar, the site has evolved to be university classrooms and performance spaces. Again, this can be connected to the image of a kaleidoscope - simple things becoming more complex.

Engaging
Entertaining

With its new identity, the site also has the added function of connecting two sides of Ball State University's campus. As of now, the stadiums and recreation fields are completely separated from the main campus footprint. By incorporating this site and connecting the two sides, the campus footprint grows. This is also reflected in a kaleidoscope. As you look through to the image and turn the kaleidoscope, shapes seem to grow and appear out of nowhere, connecting in new ways and creating new patterns.

# KALEIDOSCOPE CONCEPT JUSTIFICATION

# BRANDING

The image of the University helps consumers navigate, making the choice more secure, reliable, convenient and easy - that is, the process of choosing a university becomes more comfortable.

The key task of universities is to increase competitiveness, including through purposeful work to create a brand or improve an existing brand. The formation of a brand. The formation of a brand begins from the moment the university enters the educational market. The image of the university appears int he minds of consumers of educational services, employers and the public. There are may “newbies” on the market for whom brand building is the most important factor for gaining competitive advantages.

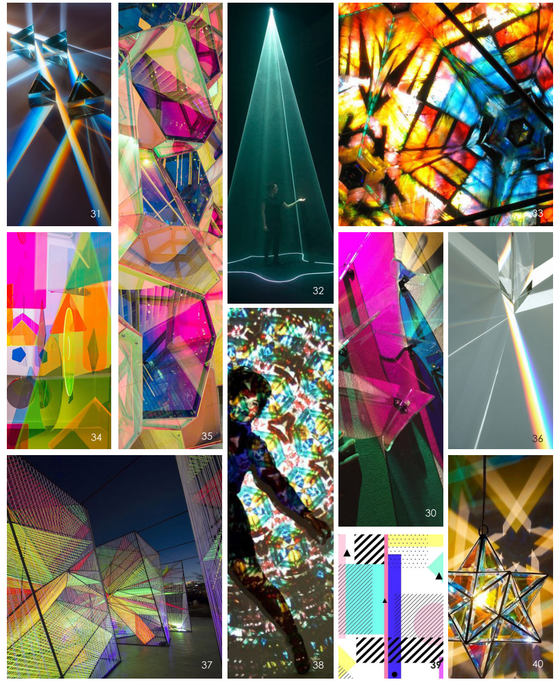
Brand formation implies a clear understanding of the essence, functions and structure of the brand. An external-oriented component can be viewed as a name, term, sign, symbol, design or combination of these elements. A consumer -focused approach can be considered as a set of associated that occur in the minds of consumers, which add perceived value. Creating a brand is an art.

Branding in higher education has its own characteristics, but the essence remains the same - a positive image and individuality. The components of a brand can be divided into tangible (name, logo, corporate colors and fonts, slogans) and intangible (communications, image and reputation). The nature of the brand is reflected in three key elements (1) a set of promises that are presented to the outside world (2) a set of facts that define the essence of the brand and (3) a set of symbolic elements. The brand can also be influenced by the types of programs offered at the university, the teachers involved and the departments.

An educational institution that has a brand is confident in the future.

## BRANDING IN THE SYSTEM OF HIGHER EDUCATION

(Rubtcova & Pavenkov, 2019)



Collaborative

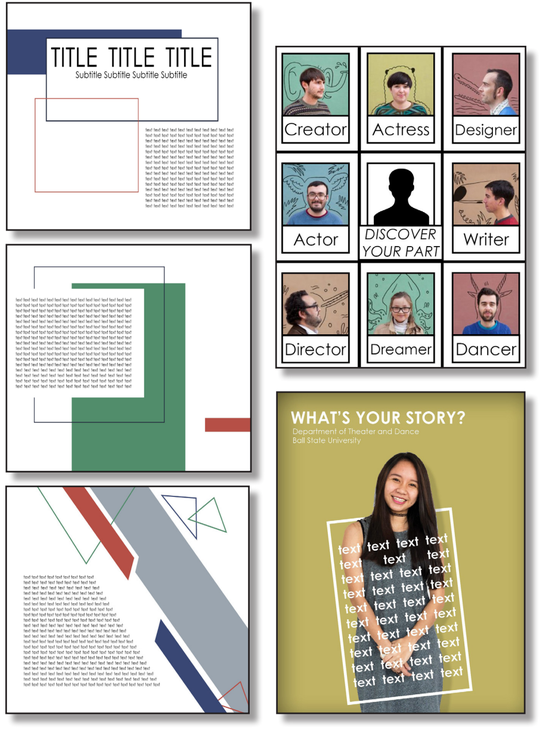
Diverse

Leading

Contemporary

Dynamic

MOOD BOARD + DRIVE TO FIVE




GRAPHIC DEVELOPMENT

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Creative Project, Final Design Construction Documents

# BALL STATE UNIVERSITY, MAIN STREET PERFORMING ARTS CENTER

103 E MAINS ST.
MUNCIE, INDIANA 47304

## OWNER/ DEVELOPER

OWNER/ DEVELOPER

BALL STATE UNIVERSITY
2000 W UNIVERSITY AVE
MUNCIE, INDIANA 47306
PHONE: (765) 289-1241

TENANT

BALL STATE UNIVERSITY
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PROJECT MANAGER

DR. SARAH ALFARO
2000 W UNIVERSITY AVE
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PHONE: (765) 289-1241

## PROJECT TEAM

ARCHITECT / INTERIOR DESIGNER

BALL STATE UNIVERSITY
EMILY SCHRIPSEMA
2000 W UNIVERSITY AVE
MUNCIE, INDIANA 47306
PHONE: (765) 289-1241

## BUILDING DATA

BUILDING CONSTRUCTION TYPE: TYPE I + II

STORIES: SIX (6)

SPRINKLERS: YES

OCCUPANCY TYPE: ASSEMBLY A-1, FACTORY F-2, STORAGE S-2

SECONDARY SPACE: ASSEMBLY A-2

T.I. LOCATION: --

SQUARE FOOTAGE: 186,774 SQ. FT.

BUILDING DEPARTMENT:
CITY OF MUNCIE, IN

## MUNICIPAL CODES

BUILDING CODES:
NFPA CODES + STANDARDS
INDIANA CHAPTER 11 ACCESSIBILITY CODES
INDIANA MECHANICAL CODE 2008
IPC 2012 EDITION
INTERNATIONAL BUILDING CODES 2012
NEC 2009 CODE
INDIANA FIRE CODE 2008

## FIRE RESISTANT REQUIR.

STRUCTURAL FRAME: 2HR
EXTERIOR BEARING WALLS: 2HR
INTERIOR BEARING WALLS: 2HR
EXTERIOR NON-BEARING WALLS: 1HR
INTERIOR NON-BEARING WALLS: 1HR
FLOOR AND SECONDARY MEMBERS: 2HR
ROOF AND SECONDARY MEMBERS: 2HR
OCCUPANCY SEPARATION: 2HR

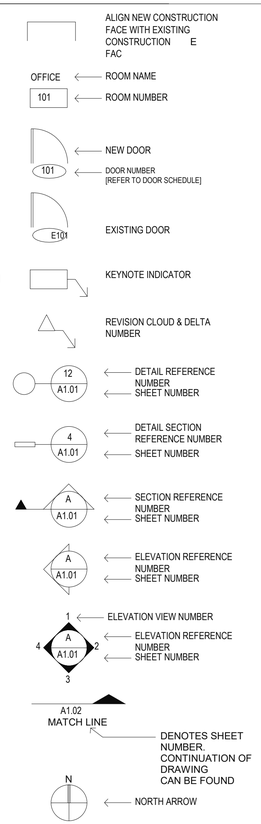
## OCCUPANCY LOAD CAL.

| TYPE: | SQFT: | OLF: | TOTAL: |
|---|---|---|---|
| LEVEL 0: | | | |
| CLASSROOM | 9,709 | 20 NET | 485 PPL |
| ASSEMBLY (UNC) | 3,952 | 15 NET | 434 PPL |
| LOCKER ROOMS | 3,734 | 50 GRS | 75 PPL |
| STORAGE | 3, 435 | 300 GRS | 12 PPL |
| LEVEL 1: | | | |
| ASSEMBLY (FIX) | 11,865 | # SEATS | 840 PPL |
| ASSEMBLY (UNC) | 2,957 | 15 NET | 197 PPL |
| ASSEMBLY (STND) | 3,921 | 5 NET | 784 PPL |
| LOCKER ROOMS | 925 | 50 GRS | 19 PPL |
| BACKSTAGE | 5,804 | 15 NET | 387 PPL |
| LEVEL 2: | | | |
| ASSEMBLY (UNC) | 2,216 | 15 NET | 148 PPL |
| INDUSTRIAL | 10,281 | 100 GRS | 103 PPL |
| LEVEL 3: | | | |
| ASSEMBLY (UNC) | 4,518 | 15 NET | 300 PPL |
| EDUCATION (SHP) | 3,100 | 50 NET | 62 PPL |
| STORAGE | 8,596 | 300 GRS | 29 PPL |
| LEVEL 4: | | | |
| ASSEMBLY (CON) | 7,552 | 7 NET | 1,079 PPL |
| LOCKER ROOMS | 2,017 | 50 GRS | 40 PPL |
| LEVEL 5: | | | |
| INDUSTRIAL | 6,668 | 100 GRS | 67 PPL |
| STORAGE | 3,000 | 300 GRS | 10 PPL |
| | | TOTAL: | 5,071 PPL |

## PLUMBING COUNTS

| AREA: | W.C: | LAV.: | W.F.: |
|---|---|---|---|
| LEVEL 0: | | | |
| CLASSROOM | 10 | 10 | 5 |
| LEVEL 1: | | | |
| ASSEMBLY | 24 | 16 | 3 |
| LEVEL 2: | | | |
| INDUSTRIAL | 1 | 1 | 1 |
| LEVEL 3: | | | |
| ASSEMBLY | 5 | 2 | 1 |
| LEVEL 4: | | | |
| ASSEMBLY | 17 | 6 | 2 |
| LEVEL 0: | | | |
| INDUSTRIAL | 1 | 1 | 1 |

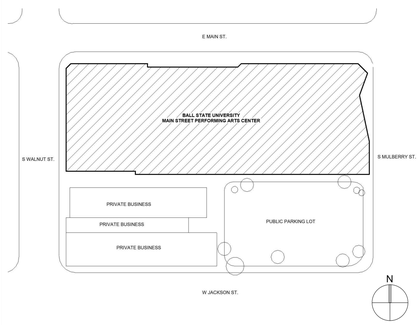
## SYMBOLS LEGEND




## SHEET INDEX


| | |
|---|---|
| G0.1 | TITLE SHEET |
| L1.1 | SITE PLAN (FOR REFERENCE ONLY) |
| S1.1 | STRUCTURAL PLAN |
| A1.1 | OCCUPANCY / EGRESS PLAN LEVEL 1 |
| A2.0 | PARTITION PLAN LEVEL 0 |
| A2.1 | PARTITION PLAN LEVEL 1 |
| A2.2 | PARTITION PLAN LEVEL 2 |
| A2.3 | PARTITION PLAN LEVEL 3 |
| A2.4 | PARTITION PLAN LEVEL 4 |
| A2.5 | PARTITION PLAN LEVEL 5 |
| A3.0 | ARCHITECTURAL SECTION |
| A4.1 | DOOR & HARDWARE SCHEDULE |
| IA1.0 | FURNITURE PLAN LEVEL 0 |
| IA1.1 | FURNITURE PLAN LEVEL 1 |
| IA1.2 | FURNITURE PLAN LEVEL 2 |
| IA1.3 | FURNITURE PLAN LEVEL 3 |
| IA1.4 | FURNITURE PLAN LEVEL 4 |
| IA1.5 | FURNITURE PLAN LEVEL 5 |
| IA1.1A | FINISH PLAN LEVEL 1 |
| IA2.1 | INTERIOR ELEVATIONS |
| P1.1 | ENLARGED PLUMBING DETAILS |
| EL1.1 | REFLECTED CEILING PLAN LEVEL 1 |
| EP1.1 | ELECTRICAL POWER PLAN LEVEL 1 |
| F1.1 | FIRE PROTECTION PLAN LEVEL 1 |


## VICINITY MAP




BALL STATE UNIVERSITY
EST. 1918
R. Wayne Estopinal College of Architecture and Planning

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 03/25/20 | FIRST SUBMITTAL |
| 2 | 04/06/20 | SECOND SUBMITTAL |
| 3 | 04/24/20 | FINAL SUBMITTAL |

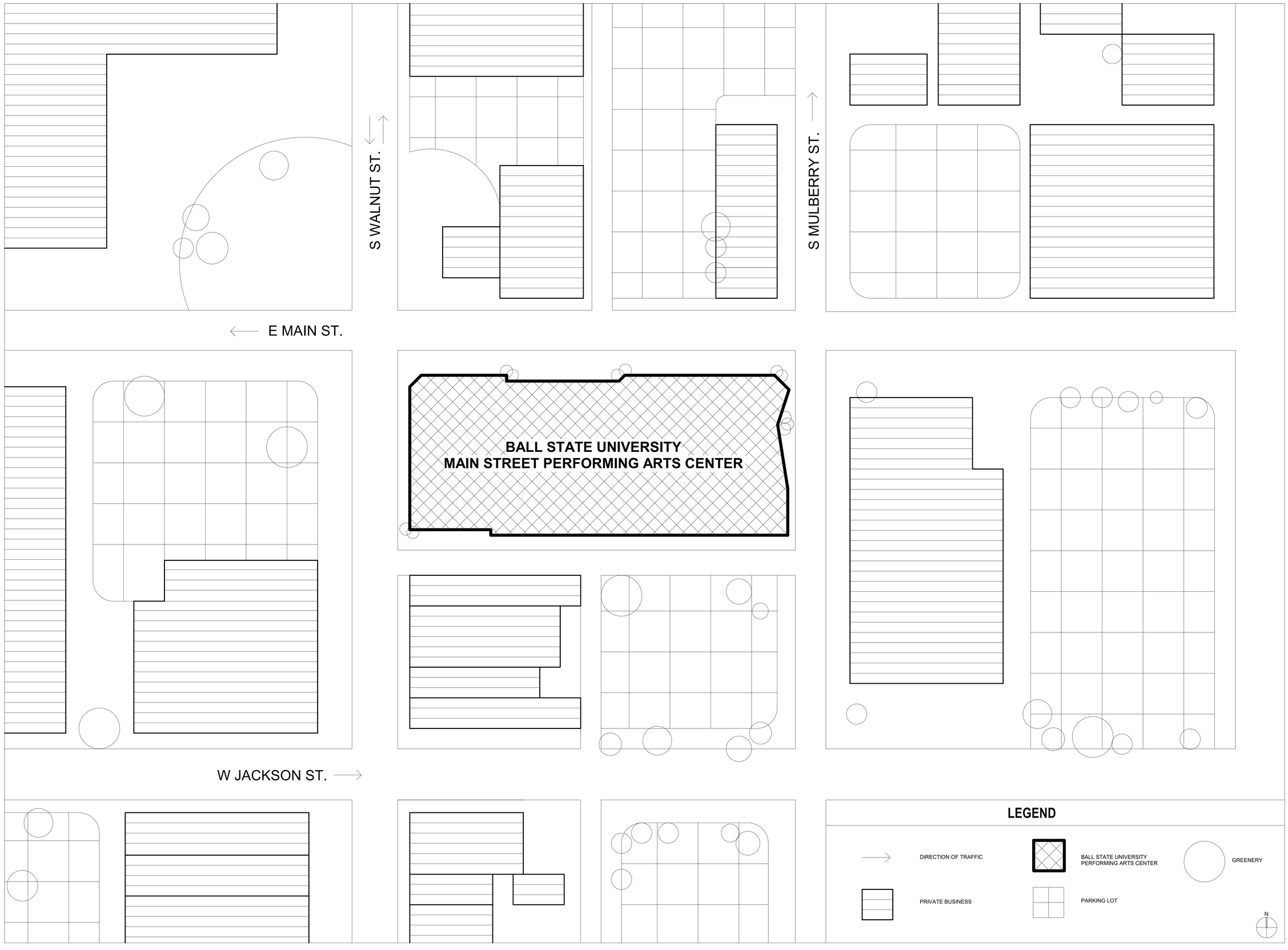
PROJECT:
MAIN STREET PERFORMING ARTS CENTER
103 E MAIN ST.
MUNCIE, INDIANA 47304

SHEET TITLE:
TITLE SHEET

DRAWN BY:
SCHRIPSEMA, EMILY

DATE:
03/25/2020

SHEET NUMBER:
G0.1




**LEGEND**

- DIRECTION OF TRAFFIC
- BALL STATE UNIVERSITY PERFORMING ARTS CENTER
- GREENERY
- PRIVATE BUSINESS
- PARKING LOT

N

BALL STATE UNIVERSITY

EST. 1918

R. Wayne Estopinal College of Architecture and Planning

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 01/15/20 | FIRST SUBMITTAL |
| 2 | 04/06/20 | SECOND SUBMITTAL |
| 3 | 04/24/20 | FINAL SUBMITTAL |

PROJECT:

# MAIN STREET PERFORMING ARTS CENTER

103 E MAIN ST.
MUNCIE, INDIANA 47304

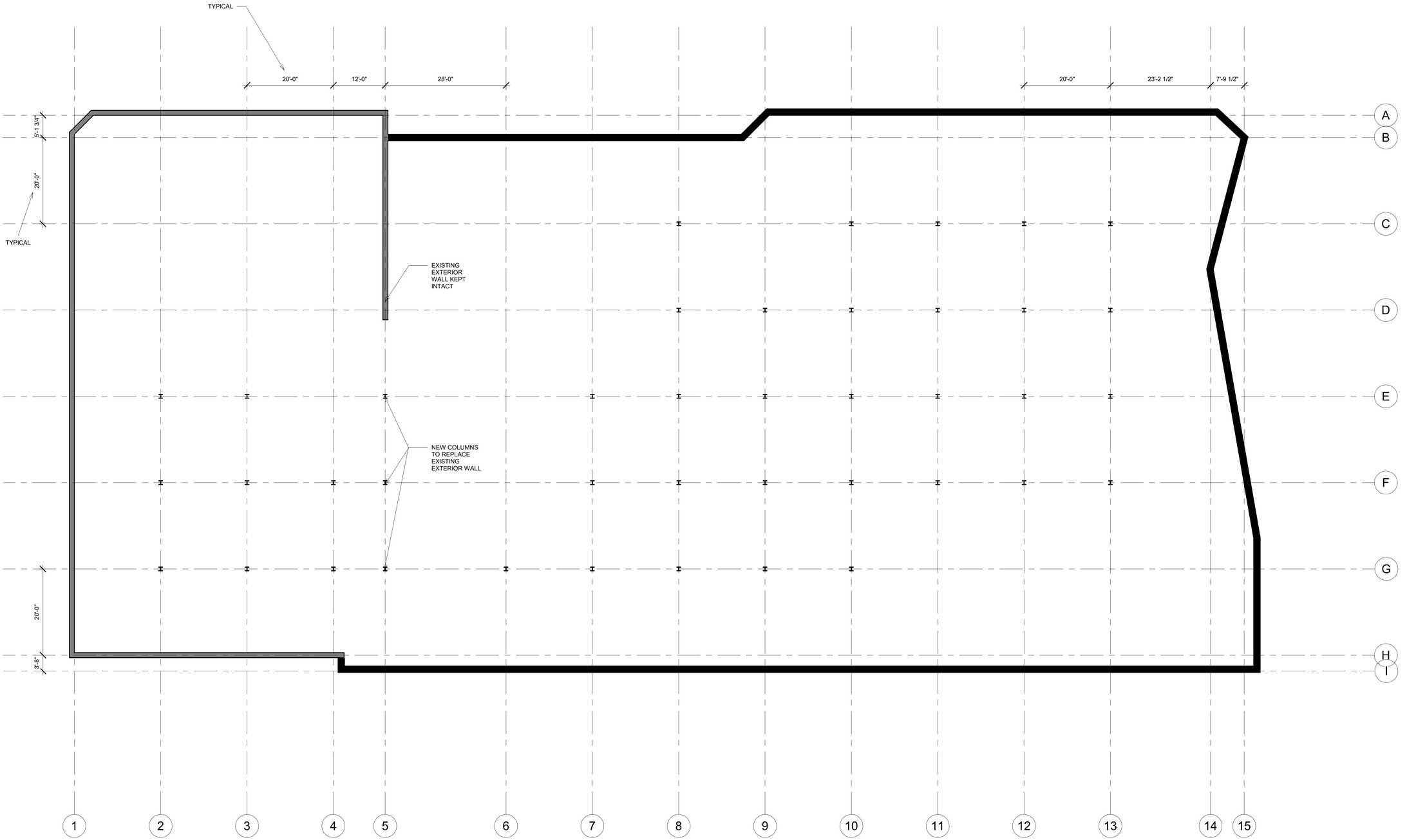
SHEET TITLE:

## SITE PLAN (ONLY FOR REFERENCE)

DRAWN BY:
SCHRIPSEMA, EMILY

DATE:
03/25/2020

SHEET NUMBER:
L1.1




1 BUILDING SHELL
3/32" = 1'-0"

N

BALL STATE UNIVERSITY
EST. 1918

R. Wayne Estopinal College of Architecture and Planning

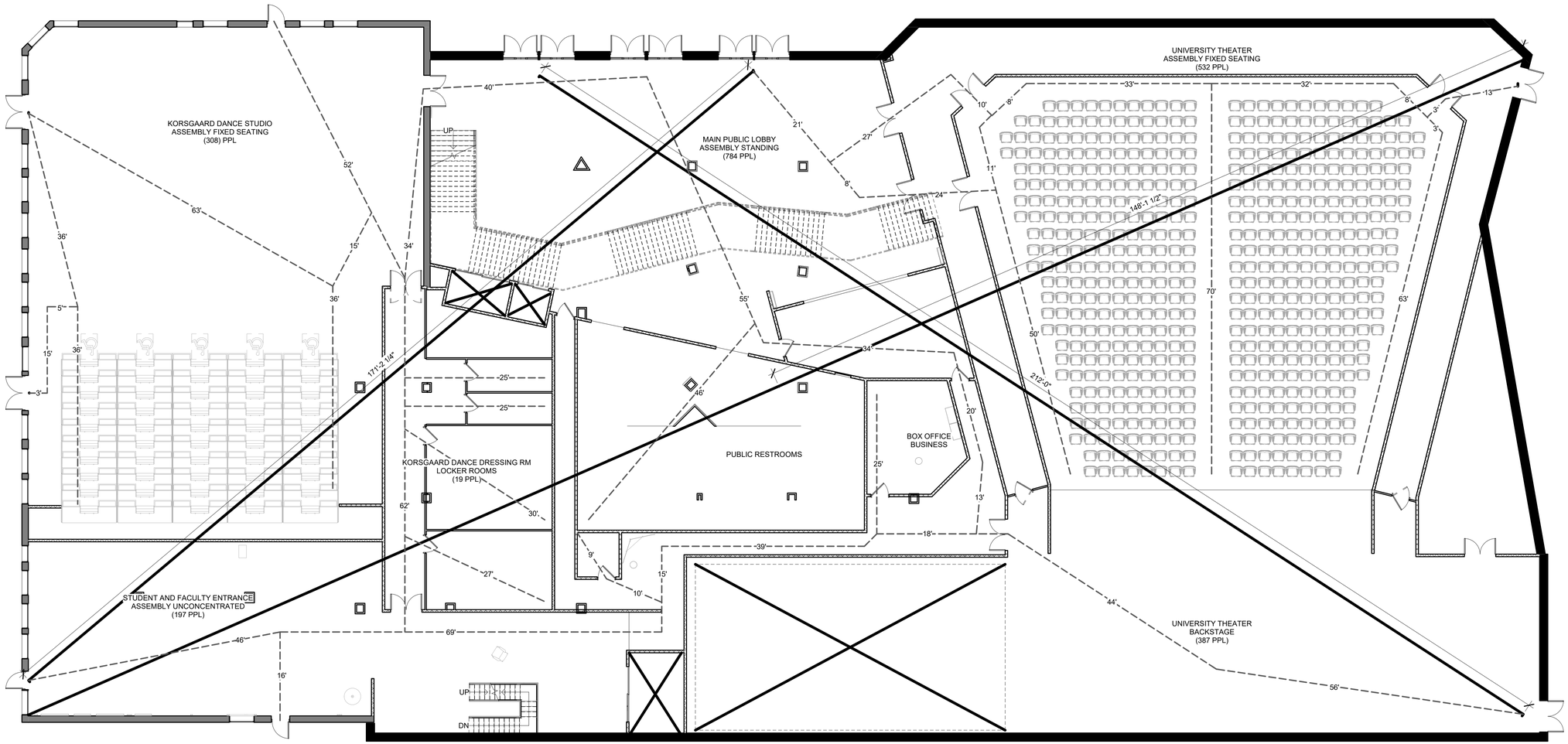
| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 03/25/20 | FIRST SUBMITTAL |
| 2 | 04/09/20 | SECOND SUBMITTAL |
| 3 | 04/24/20 | FINAL SUBMITTAL |

PROJECT
# MAIN STREET PERFORMING ARTS CENTER
103 E MAIN ST.
MUNCIE, INDIANA 47304

SHEET TITLE
## STRUCTURAL PLAN

DRAWN BY:
SCHRIPSEMA, EMILY
DATE:
03/25/2020

SHEET NUMBER:
S1.1




1 LEVEL 1 OCCUPANCY PLAN
1" = 10'-0"

## OCCUPANCY LOAD CAL.

| TYPE: | SQFT: | OLF: | TOTAL: |
|---|---|---|---|
| LEVEL 0: | | | |
| CLASSROOM | 9,709 | 20 NET | 485 PPL |
| ASSEMBLY (UNC) | 3,952 | 15 NET | 434 PPL |
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| STORAGE | 3, 435 | 300 GRS | 12 PPL |
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| STORAGE | 3,000 | 300 GRS | 10 PPL |

TOTAL: 5,071 PPL

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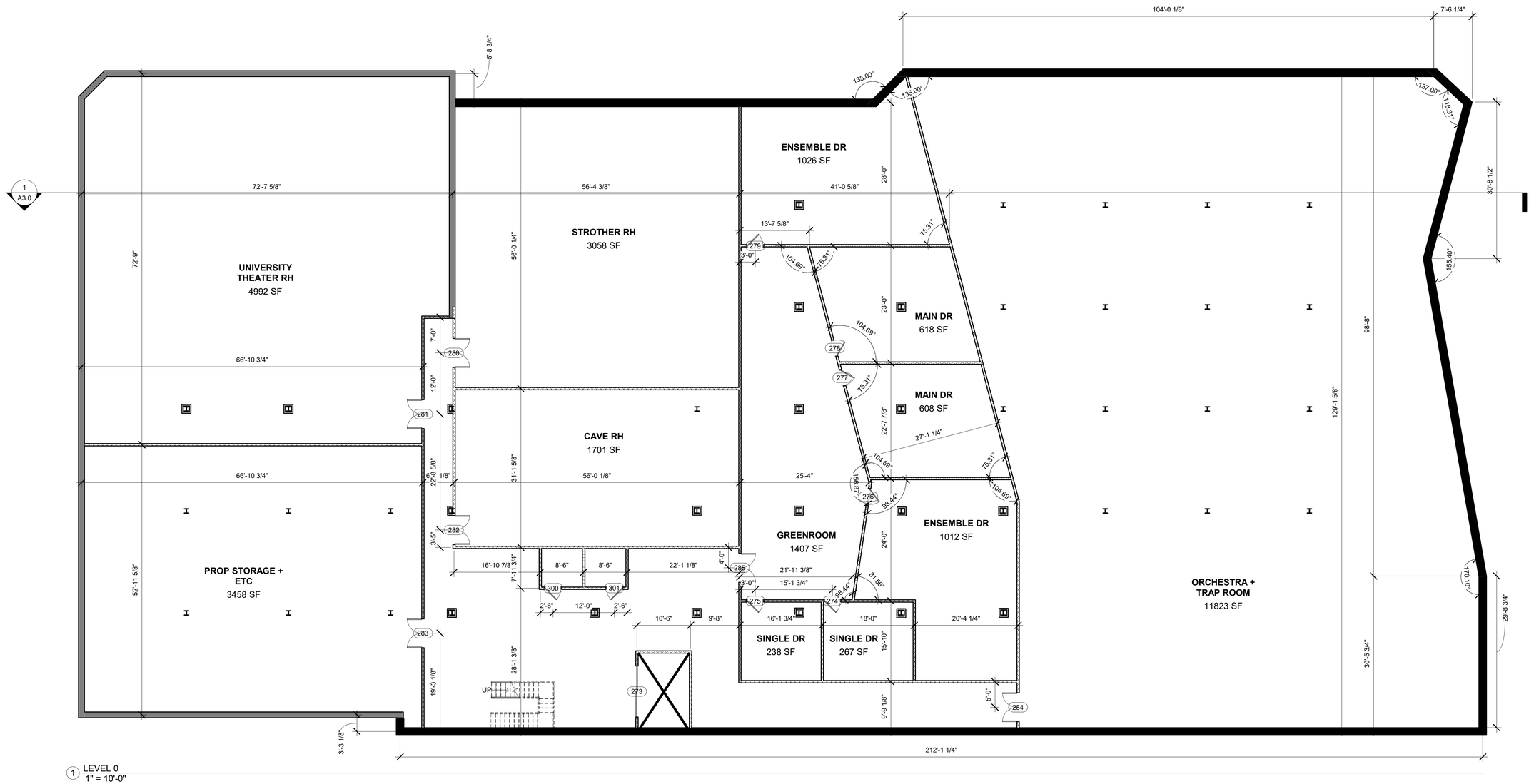
PROJECT
MAIN STREET PERFORMING ARTS CENTER
103 E MAIN ST.
MUNCIE, INDIANA 47304

SHEET TITLE
OCCUPANCY AND EGRESS PLAN

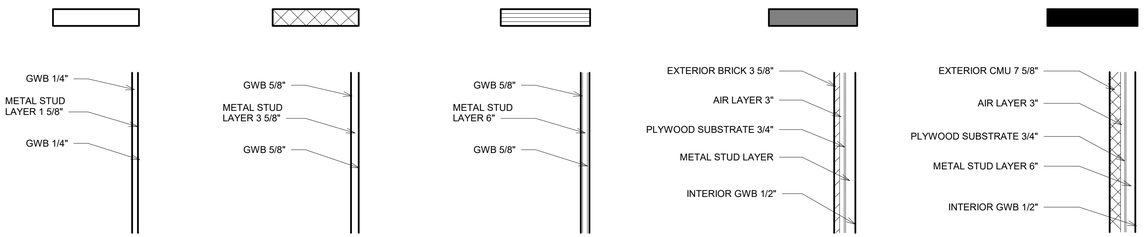
DRAWN BY:
SCHRIPSEMA, EMILY
DATE:
03/25/2020

SHEET NUMBER:
A1.1




1 LEVEL 0
1" = 10'-0"

## WALL LEGEND AND DETAILS




## PARTITION PLAN NOTES

1. CONTRACTOR AND ARCHITECT TO REVIEW A APPROVE CHALK LINES OR PARTITION LAYOUT PRIOR TO COMMENCEMENT OF PARTITION CONSTRUCTOR.
2. ENTEND ALL STUDS AND WALL MATERIALS TO CONSTRUCTION ABOVE UNLESS OTHERWISE INDICATED.
3. DOOR OPENNINGS IN PARTITIONS NOT DEMONSTRATED ARE TO BE LOCATED WITHIN 4'' OF ADJACENT PERPENDICULAR PARTITION.
4. CONTRACTOR SMALL USE 3-5/8" METAL STUDS MINIMUM AT ALL PLUMING WALLS CONTRACTOR TO VERIFY ACTUALY DEPTH REQUIRED ANY DISCREPANCIES SHALL BE REPRORTED TO THE ARCHITECT.
5. USE WATER RESISTANT GYPSUN BOARD AT ALL AREAS SUBJECT TO MOISTURE OR WHERE IT IS USED.
6. ALL PLUMBING WORK SHALL BE IN ACCORDANCE WITH LOCAL AND NATIONAL CODES.
7. ALL HOT WATER LINES SHALL BE PROPERLY INSULATED PLUMBING DRAWINGS.
8. ALL PLUMMING CLEAN-OUTS SHALL BE INSTALED WHERE READILY ACCESSIBLE CONTRACTOR SHALL COORDINATE ALL CLEAN-OUT LOCATIONS WITH EQUIPMENT AND CABINETS. SHOW A PLAN TO ALL PROPOSED LOCATIONS TO ARCHITECT FOR APPROVAL PRIOR TO ALL INSTALLATION.
9. ALL MILLWORK SHALL CONFIRM TO STATE AND LOCAL WOODWORKING STANDARDS.
10. FIELD MEASURE AS REQUIRED FOR ALL MILLWORK CONDITIONS PRIOR TO FABRICATION.
11. PROVIDE AND INSTALL ALL NECESSARY WALL BACKING STIFFINERS, BRACINGS, BACK-UP PLATES AND/OR SUPPORTING BRACHETS AS REQUIRED FOR THE INSTALLATION OF WALL-MOUNTED OR SUSPENDED EQUIPMENT OR BUILT-IN ITEMS. VERIFY REQUIREMENTS WITH MANUFACTURERES PRIOR TO INSTALLATION. SUPPLY CATALOG OUT SHEETS FOR ARCHITECTS APPROVAL.
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17. UNLESS OTHERWISE NOTED, ALL GYPSUM BOARD SURFACES WALL AND CEILINGS SHALL BE TAPED, SANDED SMOOTH TO A LEVER 4' FINISH, SO AS TO RECENT PAINT OR WALL COVERING MATERIAL.
18. PROVIDE SOUND INSULATION AT PERIMETER WALLS OR RESTROOMS, LOBBY, STAIRS, AND ACROSS CEILING OR RESTROOMS TO CREATE AN ACOUSTIC ENVELOPE, UNLESS NOTED OTHERWISE.

N

BALL STATE UNIVERSITY
EST. 1918
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| 2 | 04/06/20 | SECOND SUBMITTAL |
| 3 | 04/24/20 | FINAL SUBMITTAL |

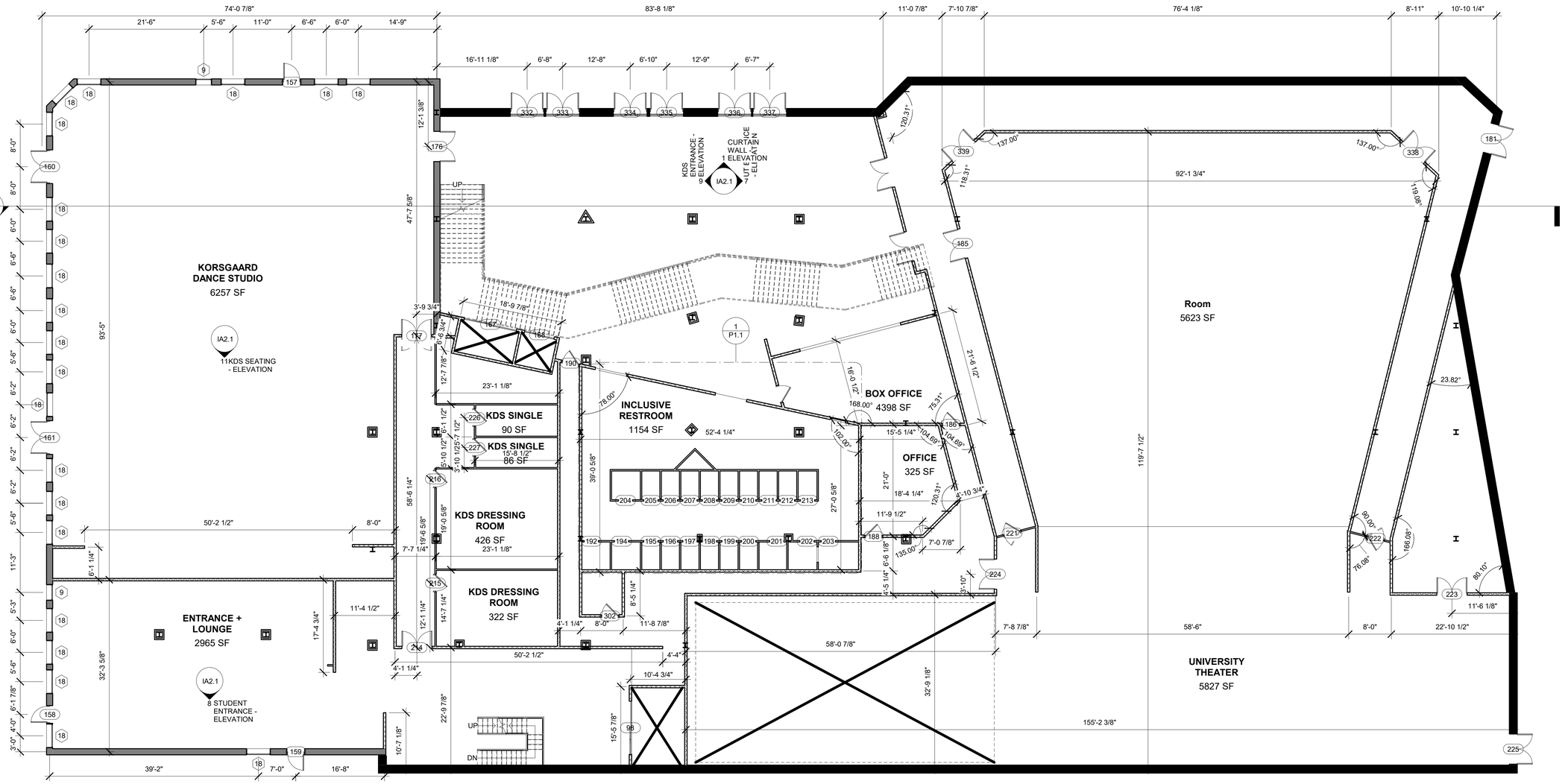
PROJECT:
# MAIN STREET PERFORMING ARTS CENTER
103 E MAIN ST.
MUNCIE, INDIANA 47304

SHEET TITLE:
**PARTITION PLAN LEVEL 0**

DRAWN BY:
SCHRIPSEMA, EMILY

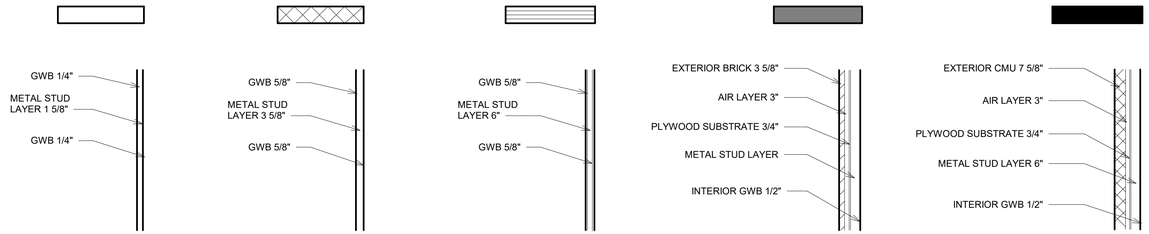
DATE:
03/25/2020

SHEET NUMBER:
**A2.0**




1 LEVEL 1
1" = 10'-0"

## WALL LEGEND AND DETAILS




## PARTITION PLAN NOTES

1. CONTRACTOR AND ARCHITECT TO REVIEW A APPROVE CHALK LINES OR PARTITION LAYOUT PRIOR TO COMMENCEMENT OF PARTITION CONSTRUCTOR.
2. ENTEND ALL STUDS AND WALL MATERIALS TO CONSTRUCTION ABOVE UNLESS OTHERWISE INDICATED.
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4. CONTRACTOR SMALL USE 3-5/8" METAL STUDS MINIMUM AT ALL PLUMING WALLS CONTRACTOR TO VERIFY ACTUALY DEPTH REQUIRED ANY DISCREPANCIES SHALL BE REPRORTED TO THE ARCHITECT.
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N

BALL STATE UNIVERSITY
EST. 1918
R. Wayne Estopinal College of Architecture and Planning

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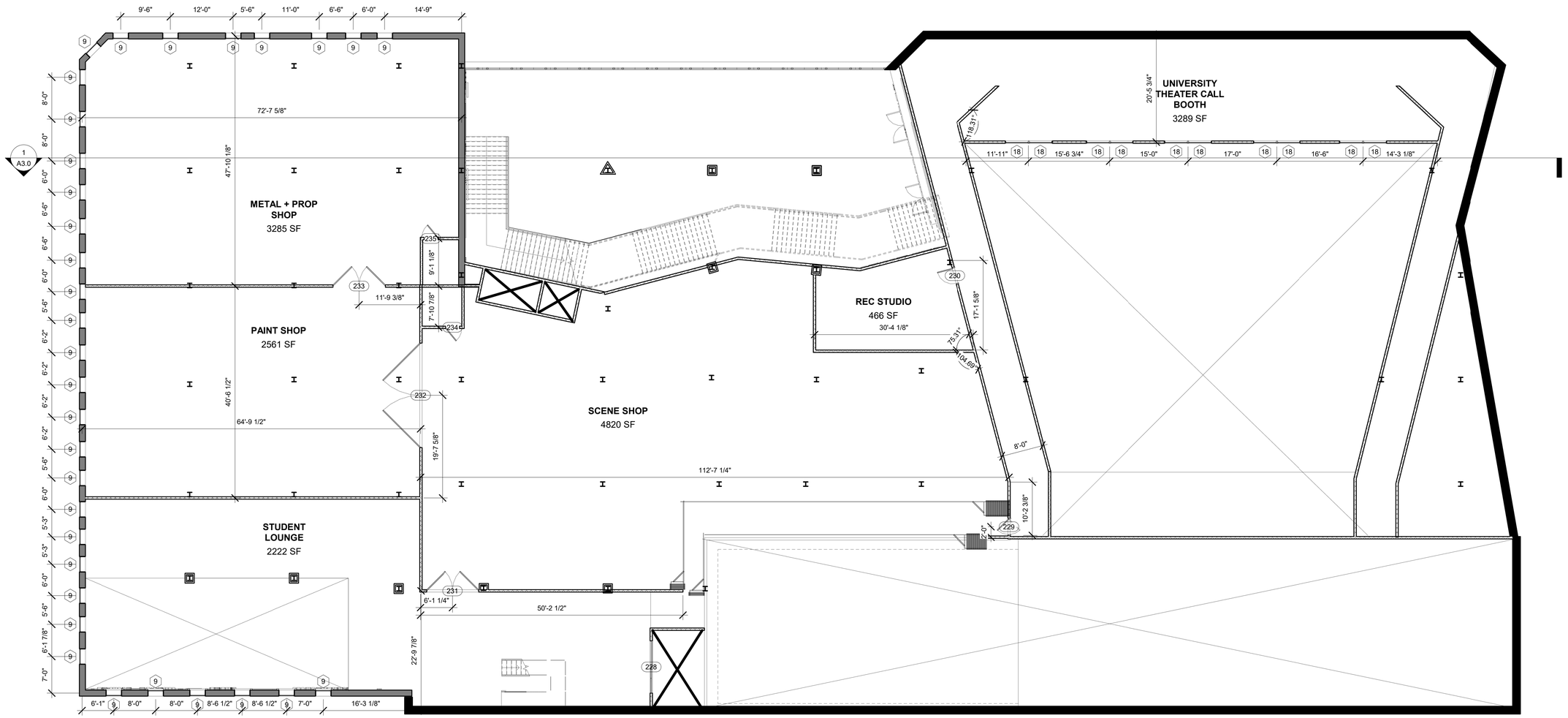
| 1 | 03/25/20 | FIRST SUBMITTAL |
| 2 | 04/08/20 | SECOND SUBMITTAL |
| 3 | 04/24/20 | FINAL SUBMITTAL |

PROJECT
# MAIN STREET PERFORMING ARTS CENTER
103 E MAIN ST.
MUNCIE, INDIANA 47304

SHEET TITLE
## PARTITION PLAN LEVEL 1

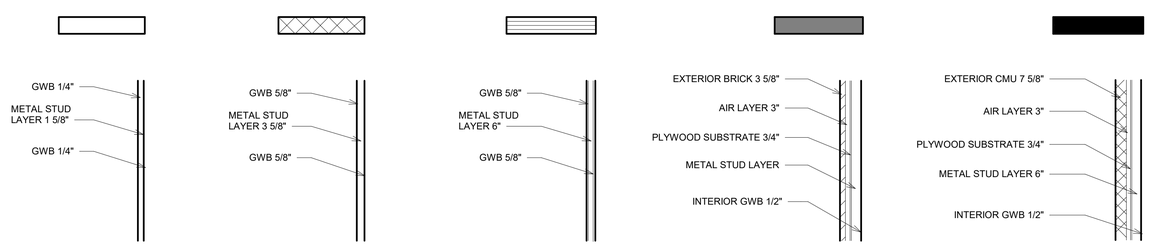
DRAWN BY:
SCHRIPSEMA, EMILY
DATE
03/25/2020

SHEET NUMBER
# A2.1




1 LEVEL 2
1" = 10'-0"

## WALL LEGEND AND DETAILS




## PARTITION PLAN NOTES

1. CONTRACTOR AND ARCHITECT TO REVIEW A APPROVE CHALK LINES OR PARTITION LAYOUT PRIOR TO COMMENCEMENT OF PARTITION CONSTRUCTOR.
2. ENTEND ALL STUDS AND WALL MATERIALS TO CONSTRUCTION ABOVE UNLESS OTHERWISE INDICATED.
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| 3 | 04/24/20 | FINAL SUBMITTAL |

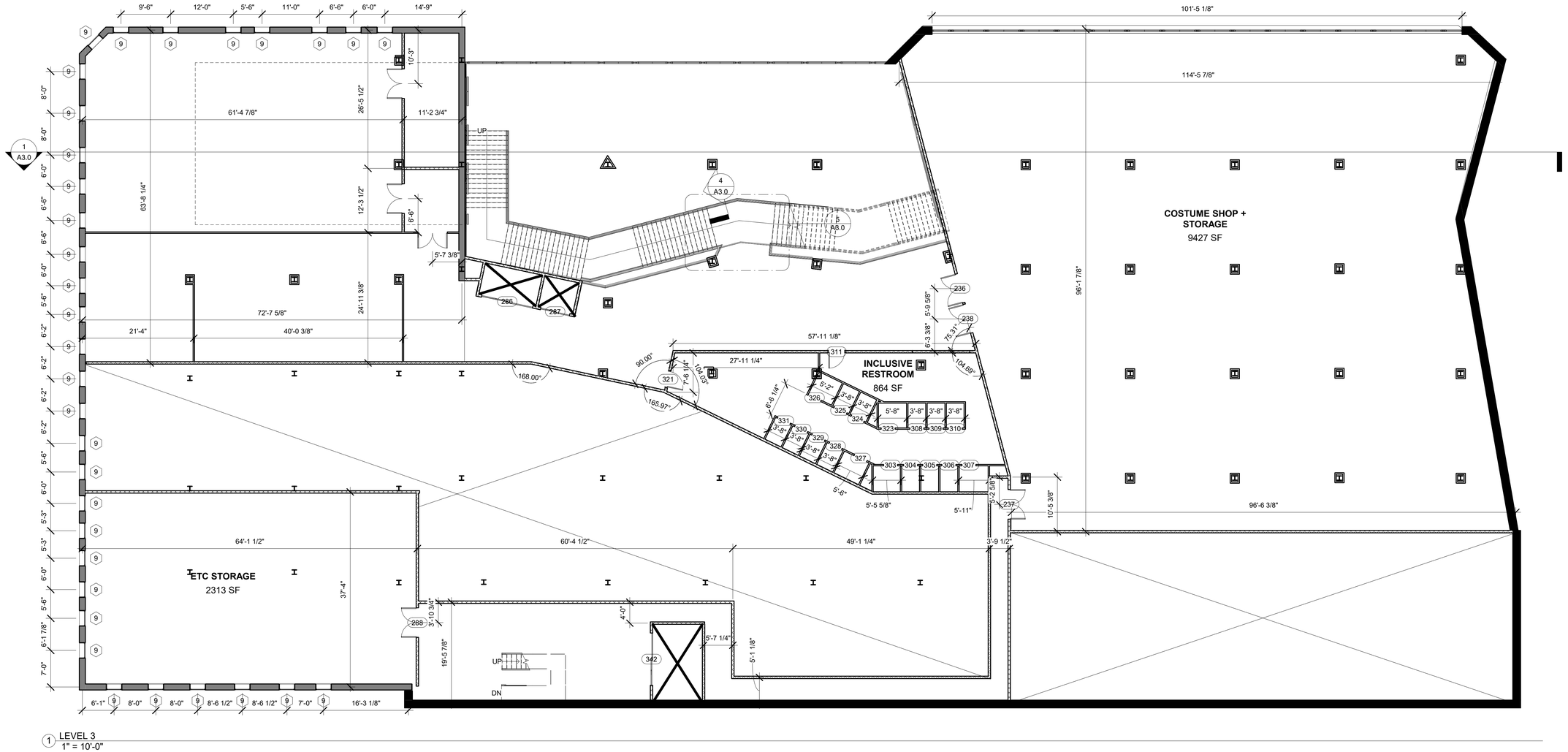
PROJECT:
# MAIN STREET PERFORMING ARTS CENTER
103 E MAIN ST.
MUNCIE, INDIANA 47304

SHEET TITLE:
**PARTITION PLAN LEVEL 2**

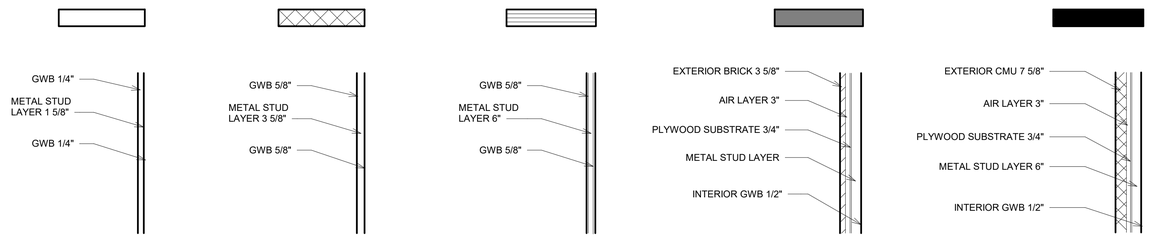
DRAWN BY:
SCHRIPSEMA, EMILY

DATE:
03/25/2020

SHEET NUMBER:
A2.2




## WALL LEGEND AND DETAILS




## PARTITION PLAN NOTES

1. CONTRACTOR AND ARCHITECT TO REVIEW A APPROVE CHALK LINES OR PARTITION LAYOUT PRIOR TO COMMENCEMENT OF PARTITION CONSTRUCTOR.
2. ENTEND ALL STUDS AND WALL MATERIALS TO CONSTRUCTION ABOVE UNLESS OTHERWISE INDICATED.
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8. ALL PLUMMING CLEAN-OUTS SHALL BE INSTALED WHERE READILY ACCESSIBLE CONTRACTOR SHALL COORDINATE ALL CLEAN-OUT LOCATIONS WITH EQUIPMENT AND CABINETS. SHOW A PLAN TO ALL PROPOSED LOCATIONS TO ARCHITECT FOR APPROVAL PRIOR TO ALL INSTALLATION.
9. ALL MILLWORK SHALL CONFIRM TO STATE AND LOCAL WOODWORKING STANDARDS.
10. FIELD MEASURE AS REQUIRED FOR ALL MILLWORK CONDITIONS PRIOR TO FABRICATION.
11. PROVIDE AND INSTALL ALL NECESSARY WALL BACKING STIFFINERS, BRACINGS, BACK-UP PLATES AND/OR SUPPORTING BRACHETS AS REQUIRED FOR THE INSTALLATION OF WALL-MOUNTED OR SUSPENDED EQUIPMENT OR BUILT-IN ITEMS. VERIFY REQUIREMENTS WITH MANUFACTURERES PRIOR TO INSTALLATION. SUPPLY CATALOG OUT SHEETS FOR ARCHITECTS APPROVAL.
12. PROVIDE AND INSTALL ALL NECESSARY ELECTRICAL CONNECTIONS AND PLUMBING SUPPLY, FITNESS AND CONNECTORS TO COMPLETE INSTALLATION OF APPLIANCES AND EQUIPMENT INDICATED ON PLAN. VERIFY EQUIPMENTS WITH MANUFACTURERS PRIOR TO INSTALLATION. APPLY CATALOG OUT SHEETS FOR ARCHITECTS APPROVAL.
13. EXACT LOCATION OF FIRE EXTINGUISHERS CABINETS TO BE CONFIRMED WITH ARCHITECT BEFORE INSTALLATION PRIOR ADDITIONAL FIRE EXTINGUISHERS AND CABINETS AS REQUIRED BY THE FIRE DEPARTMENT FIELD INSPECTORS.
14. CONTRACTOR TO VERIFY LOCATIONS OF ALL THERMOSTATS WITH ARCHITECT PRIOR TO INSTALLATION.
15. ALL EXITS SHALL HAVE EXIT SIGNS AND ALL CORRIDOR TURNS SHALL HAVE DIRECTIONAL EXIT SIGNS.
16. PREPARE ALL FLOOR SURFACES AS REQUIRED TO RECEIVE FINISHES AS NOTED ON FINISH PLAN, ENLARGE FINISH PLAN AND FINISH LEGEND.
17. UNLESS OTHERWISE NOTED, ALL GYPSUM BOARD SURFACES WALL AND CEILINGS SHALL BE TAPED, SANDED SMOOTH TO A LEVER 4' FINISH, SO AS TO RECENT PAINT OR WALL COVERING MATERIAL.
18. PROVIDE SOUND INSULATION AT PERIMETER WALLS OR RESTROOMS, LOBBY, STAIRS, AND ACROSS CEILING OR RESTROOMS TO CREATE AN ACOUSTIC ENVELOPE, UNLESS NOTED OTHERWISE.

N

BALL STATE UNIVERSITY
EST. 1918
R. Wayne Estopinal College of Architecture and Planning

| NO. | DATE | DESCRIPTION |
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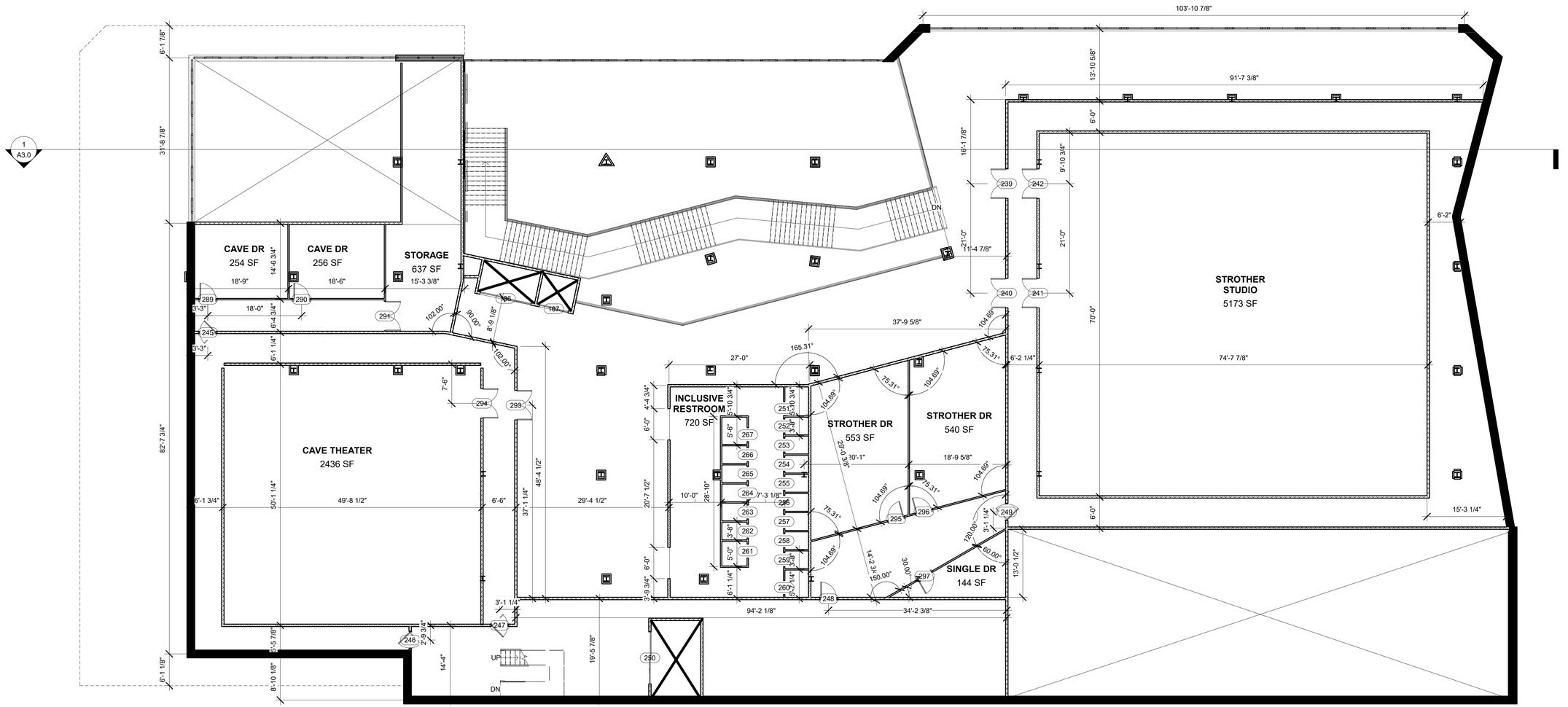
| 1 | 03/25/20 | FIRST SUBMITTAL |
| 2 | 04/08/20 | SECOND SUBMITTAL |
| 3 | 04/24/20 | FINAL SUBMITTAL |

PROJECT:
# MAIN STREET PERFORMING ARTS CENTER
103 E MAIN ST.
MUNCIE, INDIANA 47304

SHEET TITLE:
## PARTITION PLAN LEVEL 3

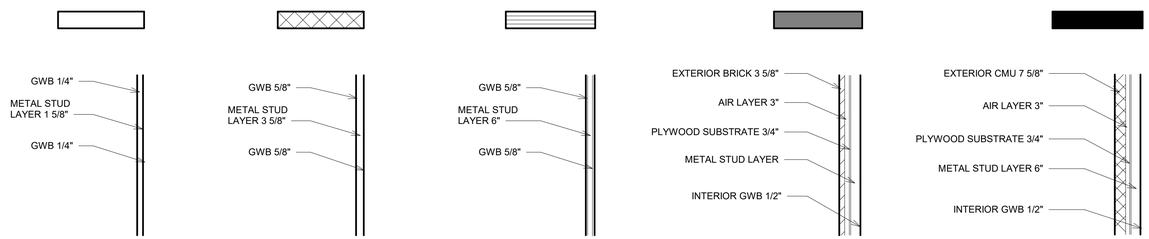
DRAWN BY: SCHRIPSEMA, EMILY
DATE: 03/25/2020

SHEET NUMBER:
# A2.3




1 LEVEL 4
1" = 10'-0"

## WALL LEGEND AND DETAILS




## PARTITION PLAN NOTES

1. CONTRACTOR AND ARCHITECT TO REVIEW A APPROVE CHALK LINES OR PARTITION LAYOUT PRIOR TO COMMENCEMENT OF PARTITION CONSTRUCTOR.
2. ENTEND ALL STUDS AND WALL MATERIALS TO CONSTRUCTION ABOVE UNLESS OTHERWISE INDICATED.
3. DOOR OPENNINGS IN PARTITIONS NOT DEMONSTRATED ARE TO BE LOCATED WITHIN 4' OF ADJACENT PERPENDICULAR PARTITION.
4. CONTRACTOR SMALL USE 3-5/8" METAL STUDS MINIMUM AT ALL PLUMING WALLS CONTRACTOR TO VERIFY ACTUALY DEPTH REQUIRED ANY DISCREPANCIES SHALL BE REPRORTED TO THE ARCHITECT.
5. USE WATER RESISTANT GYPSUN BOARD AT ALL AREAS SUBJECT TO MOISTURE OR WHERE IT IS USED.
6. ALL PLUMBING WORK SHALL BE IN ACCORDANCE WITH LOCAL AND NATIONAL CODES.
7. ALL HOT WATER LINES SHALL BE PROPERLY INSULATED PLUMBING DRAWINGS.
8. ALL PLUMMING CLEAN-OUTS SHALL BE INSTALED WHERE READILY ACCESSIBLE CONTRACTOR SHALL COORDINATE ALL CLEAN-OUT LOCATIONS WITH EQUIPMENT AND CABINETS. SHOW A PLAN TO ALL PROPOSED LOCATIONS TO ARCHITECT FOR APPROVAL PRIOR TO ALL INSTALLATION.
9. ALL MILLWORK SHALL CONFIRM TO STATE AND LOCAL WOODWORKING STANDARDS.
10. FIELD MEASURE AS REQUIRED FOR ALL MILLWORK CONDITIONS PRIOR TO FABRICATION.
11. PROVIDE AND INSTALL ALL NECESSARY WALL BACKING STIFFINERS, BRACINGS, BACK-UP PLATES AND/OR SUPPORTING BRACHETS AS REQUIRED FOR THE INSTALLATION OF WALL-MOUNTED OR SUSPENDED EQUIPMENT OR BUILT-IN ITEMS. VERIFY REQUIREMENTS WITH MANUFACTURERES PRIOR TO INSTALLATION. SUPPLY CATALOG OUT SHEETS FOR ARCHITECTS APPROVAL.
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15. ALL EXITS SHALL HAVE EXIT SIGNS AND ALL CORRIDOR TURNS SHALL HAVE DIRECTIONAL EXIT SIGNS.
16. PREPARE ALL FLOOR SURFACES AS REQUIRED TO RECEIVE FINISHES AS NOTED ON FINISH PLAN, ENLARGE FINISH PLAN AND FINISH LEGEND.
17. UNLESS OTHERWISE NOTED, ALL GYPSUM BOARD SURFACES WALL AND CEILINGS SHALL BE TAPED, SANDED SMOOTH TO A LEVER 4" FINISH, SO AS TO RECENT PAINT OR WALL COVERING MATERIAL.
18. PROVIDE SOUND INSULATION AT PERIMETER WALLS OR RESTROOMS, LOBBY, STAIRS, AND ACROSS CEILING OR RESTROOMS TO CREATE AN ACOUSTIC ENVELOPE, UNLESS NOTED OTHERWISE.

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EST. 1918
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| 2 | 04/08/20 | SECOND SUBMITTAL |
| 3 | 04/24/20 | FINAL SUBMITTAL |

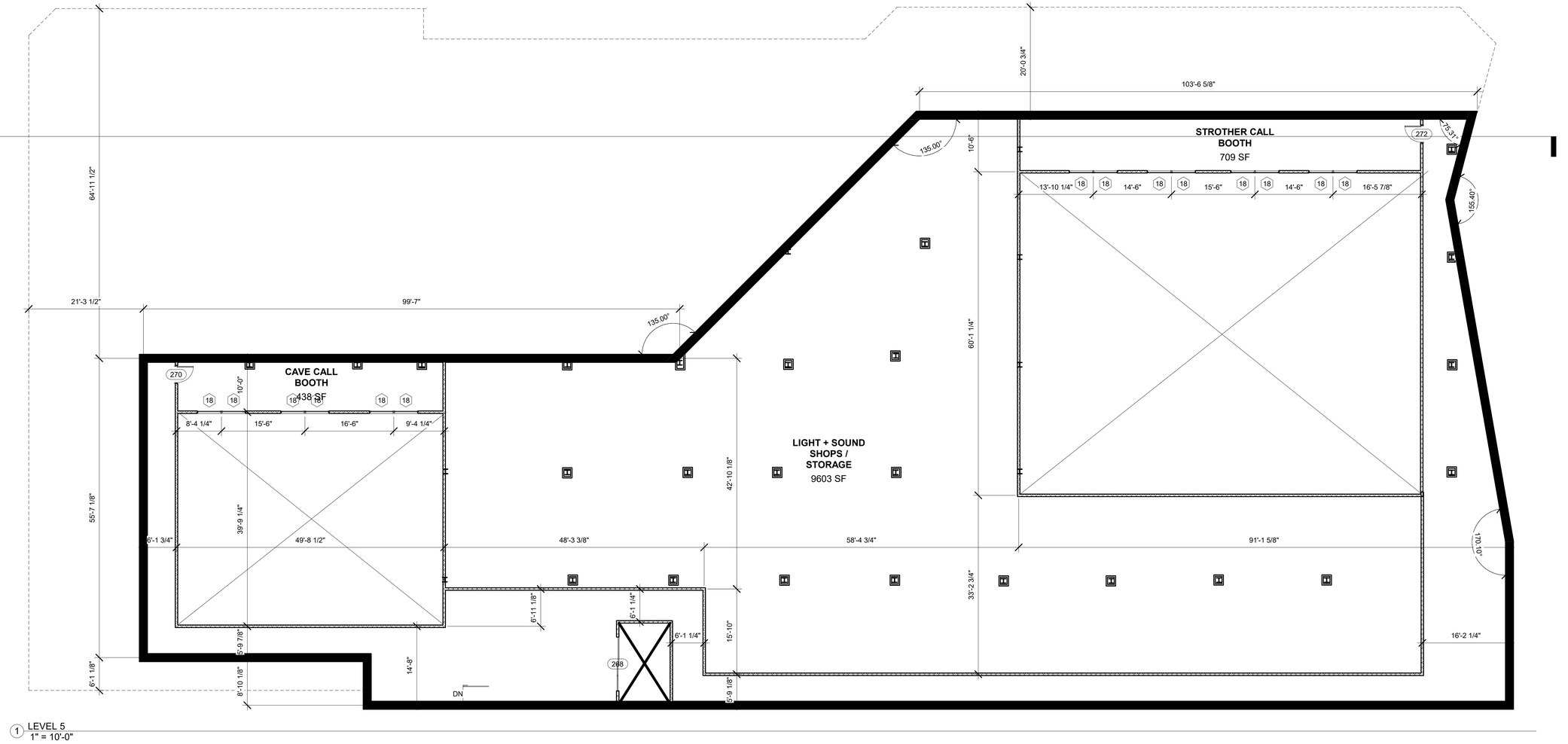
PROJECT:
# MAIN STREET PERFORMING ARTS CENTER
103 E MAIN ST.
MUNCIE, INDIANA 47304

SHEET TITLE:
## PARTITION PLAN LEVEL 4

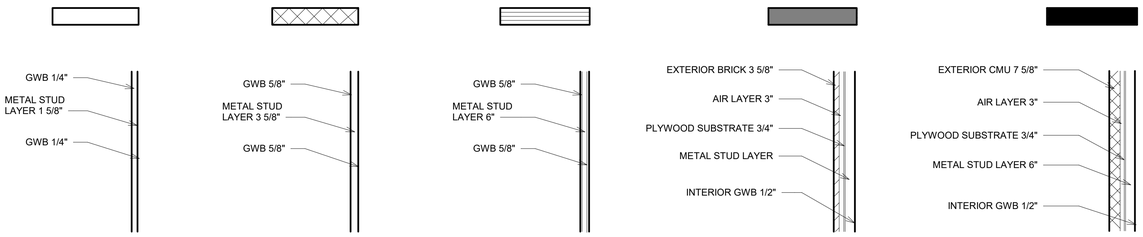
DRAWN BY:
SCHRIPSEMA, EMILY

DATE:
03/25/2020

SHEET NUMBER:
# A2.4




## WALL LEGEND AND DETAILS




## PARTITION PLAN NOTES

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2. ENTEND ALL STUDS AND WALL MATERIALS TO CONSTRUCTION ABOVE UNLESS OTHERWISE INDICATED.
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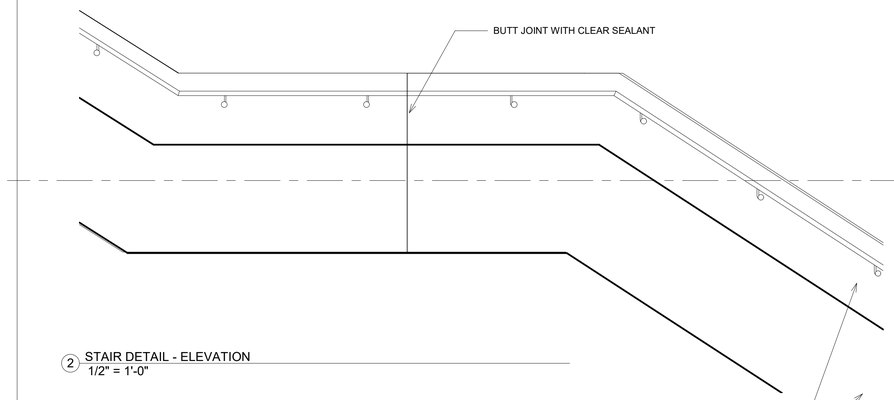
PROJECT:
# MAIN STREET PERFORMING ARTS CENTER
103 E MAIN ST.
MUNCIE, INDIANA 47304

SHEET TITLE:
## PARTITION PLAN LEVEL 5

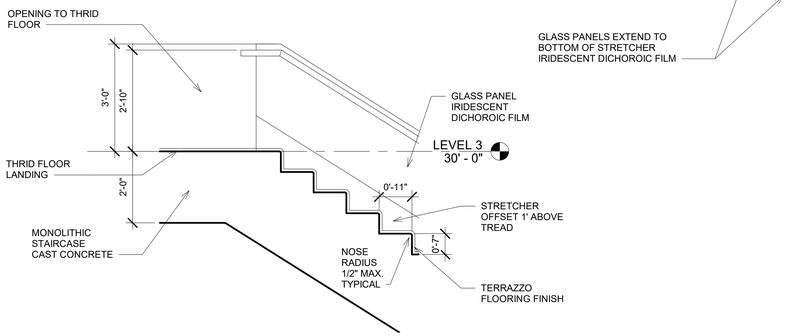
DRAWN BY:
SCHRIPSEMA, EMILY

DATE:
03/25/2020

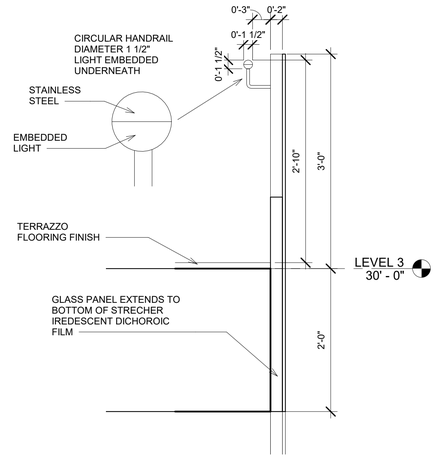
SHEET NUMBER:
# A2.5



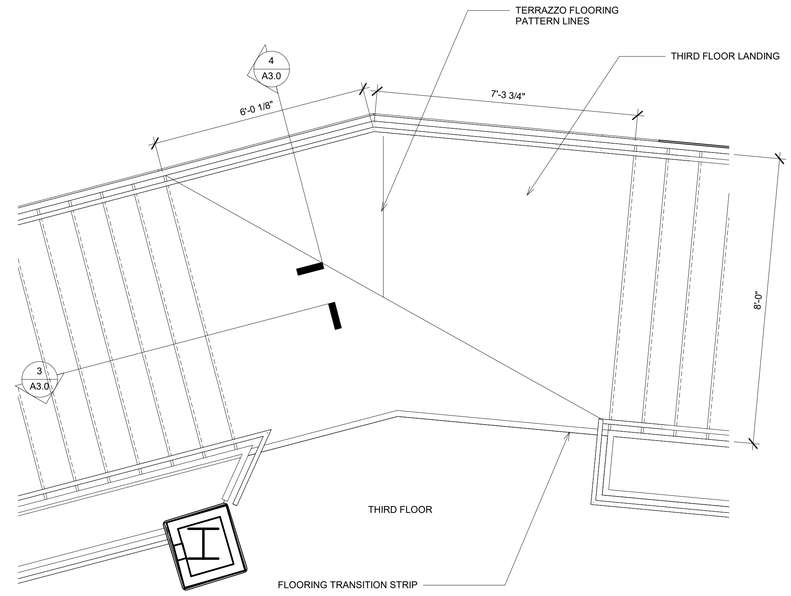

2 STAIR DETAIL - ELEVATION
1/2" = 1'-0"



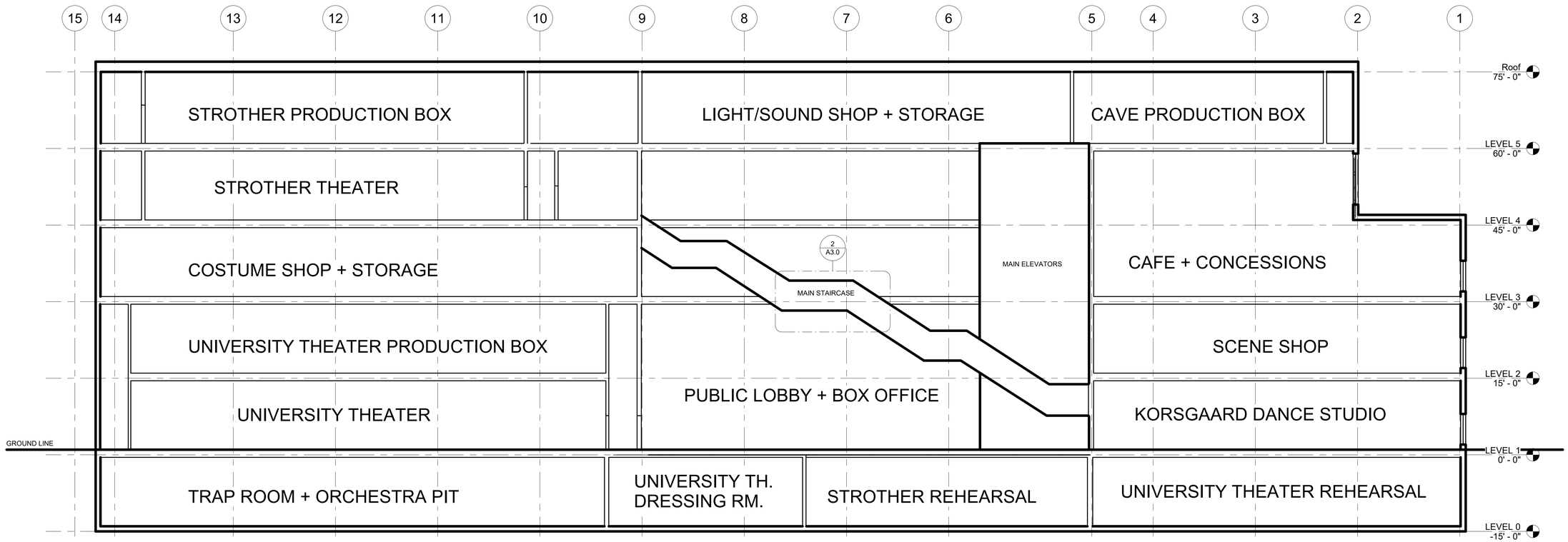

3 STAIR DETAIL - SECTION
1/2" = 1'-0"




4 HANDRAIL DETAIL - SECTION
1" = 1'-0"




5 STAIR DETAIL - PLAN
1/2" = 1'-0"




1 LONGITUDINAL WHOLE BUILDING SECTION
1" = 10'-0"

BALL STATE UNIVERSITY
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| 3 | 04/24/20 | FINAL SUBMITTAL |

PROJECT
# MAIN STREET PERFORMING ARTS CENTER
103 E MAIN ST.
MUNCIE, INDIANA 47304

SHEET TITLE
## ARCHITECTURAL SECTIONS

DRAWN BY: SCHRIPSEMA, EMILY
DATE: 03/25/2020

SHEET NUMBER:
A3.0

## DOOR AND HARDWARE SCHEDULE

| LEVEL | TAG | TYPE | W | H | FINISH | HARDWARE |
|---|---|---|---|---|---|---|
| LEVEL 0 | 273 | ELEVATOR, LARGE | 10' - 0" | 6' - 8" | STAINLESS STEEL, POLISHED | -- |
| LEVEL 0 | 274 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 0 | 275 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 0 | 276 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 0 | 277 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 0 | 278 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 0 | 279 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 0 | 280 | INTERIOR DOUBLE, SINGLE LITE | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT + FROSTED GLAZING | ONE (1) |
| LEVEL 0 | 281 | INTERIOR DOUBLE, SINGLE LITE | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT + FROSTED GLAZING | ONE (1) |
| LEVEL 0 | 282 | INTERIOR DOUBLE, SINGLE LITE | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT + FROSTED GLAZING | ONE (1) |
| LEVEL 0 | 283 | INTERIOR DOUBLE, SOLID | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT | ONE (1) |
| LEVEL 0 | 284 | INTERIOR DOUBLE, SOLID | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT | ONE (1) |
| LEVEL 0 | 285 | INTERIOR DOUBLE, SOLID | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT | ONE (1) |
| LEVEL 0 | 300 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 0 | 301 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 1 | 98 | ELEVATOR, LARGE | 10' - 0" | 6' - 8" | STAINLESS STEEL, POLISHED | -- |
| LEVEL 1 | 157 | EXTERIOR SINGLE, TWO-LITE | 3' - 0" | 7' - 0" | STAINLESS STEEL + CLEAR GLAZING | ONE (1) |
| LEVEL 1 | 158 | EXTERIOR SINGLE, TWO-LITE | 3' - 0" | 7' - 0" | STAINLESS STEEL + CLEAR GLAZING | ONE (1) |
| LEVEL 1 | 159 | EXTERIOR SINGLE, TWO-LITE | 3' - 0" | 7' - 0" | STAINLESS STEEL + CLEAR GLAZING | ONE (1) |
| LEVEL 1 | 160 | EXTERIOR DOUBLE, TWO LITE | 6' - 0" | 6' - 8" | STAINLESS STEEL + CLEAR GLAZING | ONE (1) |
| LEVEL 1 | 161 | EXTERIOR DOUBLE, TWO LITE | 6' - 0" | 6' - 8" | STAINLESS STEEL + CLEAR GLAZING | ONE (1) |
| LEVEL 1 | 167 | ELEVATOR, LARGE | 10' - 0" | 6' - 8" | STAINLESS STEEL, POLISHED | -- |
| LEVEL 1 | 168 | ELEVATOR, SMALL | 5' - 8" | 6' - 8" | STAINLESS STEEL, POLISHED | -- |
| LEVEL 1 | 176 | INTERIOR DOUBLE, SINGLE LITE | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT + FROSTED GLAZING | ONE (1) |
| LEVEL 1 | 177 | INTERIOR DOUBLE, DOUBLE ACTING | 5' - 8" | 6' - 8" | SOLID LAMINATE, CHARCOAL | -- |
| LEVEL 1 | 181 | EXTERIOR DOUBLE, SOLID | 5' - 8" | 6' - 8" | STAINLESS STEEL | ONE (1) |
| LEVEL 1 | 185 | INTERIOR DOUBLE, SOLID | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT | ONE (1) |
| LEVEL 1 | 186 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 1 | 188 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 1 | 190 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 1 | 192 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, SQAUSH | |
| LEVEL 1 | 194 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, REEF | |
| LEVEL 1 | 195 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, MERLOT | |
| LEVEL 1 | 196 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, SQAUSH | |
| LEVEL 1 | 197 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, REEF | |
| LEVEL 1 | 198 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, MERLOT | |
| LEVEL 1 | 199 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, SQAUSH | |
| LEVEL 1 | 200 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, REEF | |
| LEVEL 1 | 201 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, MERLOT | |
| LEVEL 1 | 202 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, SQAUSH | |
| LEVEL 1 | 203 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, REEF | |
| LEVEL 1 | 204 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, MERLOT | |
| LEVEL 1 | 205 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, SQAUSH | |
| LEVEL 1 | 206 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, REEF | |
| LEVEL 1 | 207 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, MERLOT | |
| LEVEL 1 | 208 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, SQAUSH | |
| LEVEL 1 | 209 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, REEF | |
| LEVEL 1 | 210 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, MERLOT | |
| LEVEL 1 | 211 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, SQAUSH | |
| LEVEL 1 | 212 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, REEF | |
| LEVEL 1 | 213 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, MERLOT | |
| LEVEL 1 | 214 | INTERIOR DOUBLE, SINGLE LITE | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT + FROSTED GLAZING | ONE (1) |
| LEVEL 1 | 215 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 1 | 216 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 1 | 221 | INTERIOR SINGLE, DOUBLE ACTING | 3' - 0" | 7' - 0" | SOLID LAMINATE, CHARCOAL | -- |
| LEVEL 1 | 222 | INTERIOR SINGLE, DOUBLE ACTING | 3' - 0" | 7' - 0" | SOLID LAMINATE, CHARCOAL | -- |
| LEVEL 1 | 223 | INTERIOR DOUBLE, SOLID | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT | ONE (1) |
| LEVEL 1 | 224 | INTERIOR DOUBLE, SOLID | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT | ONE (1) |
| LEVEL 1 | 225 | INTERIOR DOUBLE, SINGLE LITE | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT + FROSTED GLAZING | ONE (1) |
| LEVEL 1 | 226 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 1 | 227 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 1 | 302 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |

## DOOR AND HARDWARE SCHEDULE

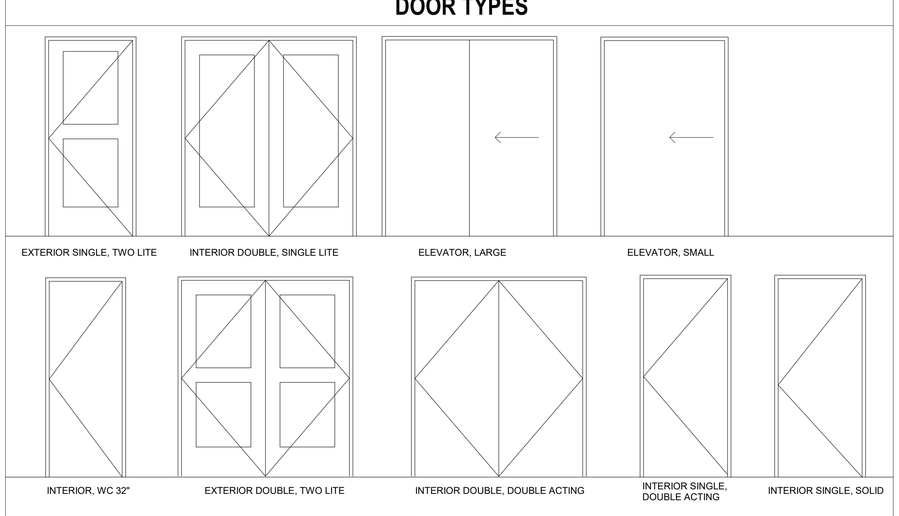
| LEVEL | TAG | TYPE | W | H | FINISH | HARDWARE |
|---|---|---|---|---|---|---|
| LEVEL 1 | 332 | EXTERIOR DOUBLE, TWO LITE | 6' - 0" | 6' - 8" | STAINLESS STEEL + CLEAR GLAZING | ONE (1) |
| LEVEL 1 | 333 | EXTERIOR DOUBLE, TWO LITE | 6' - 0" | 6' - 8" | STAINLESS STEEL + CLEAR GLAZING | ONE (1) |
| LEVEL 1 | 334 | EXTERIOR DOUBLE, TWO LITE | 6' - 0" | 6' - 8" | STAINLESS STEEL + CLEAR GLAZING | ONE (1) |
| LEVEL 1 | 335 | EXTERIOR DOUBLE, TWO LITE | 6' - 0" | 6' - 8" | STAINLESS STEEL + CLEAR GLAZING | ONE (1) |
| LEVEL 1 | 336 | EXTERIOR DOUBLE, TWO LITE | 6' - 0" | 6' - 8" | STAINLESS STEEL + CLEAR GLAZING | ONE (1) |
| LEVEL 1 | 337 | EXTERIOR DOUBLE, TWO LITE | 6' - 0" | 6' - 8" | STAINLESS STEEL + CLEAR GLAZING | ONE (1) |
| LEVEL 1 | 338 | INTERIOR DOUBLE, SOLID | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT | ONE (1) |
| LEVEL 1 | 339 | INTERIOR DOUBLE, SOLID | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT | ONE (1) |
| LEVEL 1 | 345 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 1 | 348 | INTERIOR DOUBLE, SINGLE LITE 2 | 5' - 8" | 8' - 0" | WOOD LAMINATE, LIGHT | |
| LEVEL 1 | 349 | INTERIOR DOUBLE, SINGLE LITE 2 | 5' - 8" | 8' - 0" | WOOD LAMINATE, LIGHT | |
| LEVEL 2 | 228 | ELEVATOR, LARGE | 10' - 0" | 6' - 8" | STAINLESS STEEL, POLISHED | -- |
| LEVEL 2 | 229 | INTERIOR SINGLE, DOUBLE ACTING | 3' - 0" | 7' - 0" | SOLID LAMINATE, CHARCOAL | -- |
| LEVEL 2 | 230 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 2 | 231 | INTERIOR, LARGE SHOP DOOR | 10' - 0" | 6' - 8" | ALUMINIUM, BRUSHED | TWO (2) |
| LEVEL 2 | 232 | INTERIOR, XLARGE SHOP DOOR | 20' - 0" | 6' - 8" | ALUMINIUM, BRUSHED | TWO (2) |
| LEVEL 2 | 233 | INTERIOR, LARGE SHOP DOOR | 10' - 0" | 6' - 8" | ALUMINIUM, BRUSHED | TWO (2) |
| LEVEL 2 | 234 | INTERIOR, WC 32" | 2' - 8" | 7' - 0" | | |
| LEVEL 2 | 235 | INTERIOR, WC 32" | 2' - 8" | 7' - 0" | | |
| LEVEL 3 | 236 | INTERIOR DOUBLE, SINGLE LITE | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT + FROSTED GLAZING | ONE (1) |
| LEVEL 3 | 237 | INTERIOR DOUBLE, SINGLE LITE | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT + FROSTED GLAZING | ONE (1) |
| LEVEL 3 | 238 | INTERIOR DOUBLE, SINGLE LITE | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT + FROSTED GLAZING | ONE (1) |
| LEVEL 3 | 286 | ELEVATOR, LARGE | 10' - 0" | 6' - 8" | STAINLESS STEEL, POLISHED | -- |
| LEVEL 3 | 287 | ELEVATOR, SMALL | 5' - 8" | 6' - 8" | STAINLESS STEEL, POLISHED | -- |
| LEVEL 3 | 288 | INTERIOR DOUBLE, SOLID | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT | ONE (1) |
| LEVEL 3 | 303 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, MERLOT | |
| LEVEL 3 | 304 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, REEF | |
| LEVEL 3 | 305 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, SQAUSH | |
| LEVEL 3 | 306 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, MERLOT | |
| LEVEL 3 | 307 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, REEF | |
| LEVEL 3 | 308 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, SQAUSH | |
| LEVEL 3 | 309 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, MERLOT | |
| LEVEL 3 | 310 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, REEF | |
| LEVEL 3 | 311 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 3 | 321 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 3 | 323 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, SQAUSH | |
| LEVEL 3 | 324 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, MERLOT | |
| LEVEL 3 | 325 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, REEF | |
| LEVEL 3 | 326 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, SQAUSH | |
| LEVEL 3 | 327 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, MERLOT | |
| LEVEL 3 | 328 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, REEF | |
| LEVEL 3 | 329 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, SQAUSH | |
| LEVEL 3 | 330 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, MERLOT | |
| LEVEL 3 | 331 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, REEF | |
| LEVEL 3 | 342 | ELEVATOR, LARGE | 10' - 0" | 6' - 8" | STAINLESS STEEL, POLISHED | -- |
| LEVEL 3 | 350 | INTERIOR DOUBLE, SOLID | 5' - 8" | 6' - 8" | | ONE (1) |
| LEVEL 3 | 351 | INTERIOR DOUBLE, SINGLE LITE 2 | 5' - 8" | 8' - 0" | | |
| LEVEL 3 | 352 | INTERIOR DOUBLE, SOLID | 5' - 8" | 6' - 8" | | ONE (1) |
| LEVEL 4 | 106 | ELEVATOR, LARGE | 10' - 0" | 6' - 8" | STAINLESS STEEL, POLISHED | -- |
| LEVEL 4 | 107 | ELEVATOR, SMALL | 5' - 8" | 6' - 8" | STAINLESS STEEL, POLISHED | -- |
| LEVEL 4 | 239 | INTERIOR DOUBLE, SINGLE LITE | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT + FROSTED GLAZING | ONE (1) |
| LEVEL 4 | 240 | INTERIOR DOUBLE, SINGLE LITE | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT + FROSTED GLAZING | ONE (1) |
| LEVEL 4 | 241 | INTERIOR DOUBLE, SOLID | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT | ONE (1) |
| LEVEL 4 | 242 | INTERIOR DOUBLE, SOLID | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT | ONE (1) |
| LEVEL 4 | 245 | INTERIOR SINGLE, DOUBLE ACTING | 3' - 0" | 7' - 0" | SOLID LAMINATE, CHARCOAL | -- |
| LEVEL 4 | 246 | INTERIOR SINGLE, DOUBLE ACTING | 3' - 0" | 7' - 0" | SOLID LAMINATE, CHARCOAL | -- |

## DOOR AND HARDWARE SCHEDULE

| LEVEL | TAG | TYPE | W | H | FINISH | HARDWARE |
|---|---|---|---|---|---|---|
| LEVEL 4 | 247 | INTERIOR SINGLE, DOUBLE ACTING | 3' - 0" | 7' - 0" | SOLID LAMINATE, CHARCOAL | -- |
| LEVEL 4 | 248 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 4 | 249 | INTERIOR SINGLE, DOUBLE ACTING | 3' - 0" | 7' - 0" | SOLID LAMINATE, CHARCOAL | -- |
| LEVEL 4 | 250 | ELEVATOR, LARGE | 10' - 0" | 6' - 8" | STAINLESS STEEL, POLISHED | -- |
| LEVEL 4 | 251 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, MERLOT | |
| LEVEL 4 | 252 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, REEF | |
| LEVEL 4 | 253 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, SQAUSH | |
| LEVEL 4 | 254 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, MERLOT | |
| LEVEL 4 | 255 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, REEF | |
| LEVEL 4 | 256 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, SQAUSH | |
| LEVEL 4 | 257 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, MERLOT | |
| LEVEL 4 | 258 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, REEF | |
| LEVEL 4 | 259 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, SQAUSH | |
| LEVEL 4 | 260 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, MERLOT | |
| LEVEL 4 | 261 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, REEF | |
| LEVEL 4 | 262 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, SQAUSH | |
| LEVEL 4 | 263 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, MERLOT | |
| LEVEL 4 | 264 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, REEF | |
| LEVEL 4 | 265 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, SQAUSH | |
| LEVEL 4 | 266 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, MERLOT | |
| LEVEL 4 | 267 | 3FORM PIVOT DOOR | 2' - 8" | 7' - 0" | 3FORM VARIA PANEL, REEF | |
| LEVEL 4 | 289 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 4 | 290 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 4 | 291 | INTERIOR DOUBLE, SOLID | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT | ONE (1) |
| LEVEL 4 | 293 | INTERIOR DOUBLE, SINGLE LITE | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT + FROSTED GLAZING | ONE (1) |
| LEVEL 4 | 294 | INTERIOR DOUBLE, SOLID | 5' - 8" | 6' - 8" | WOOD LAMINATE, LIGHT | ONE (1) |
| LEVEL 4 | 295 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 4 | 296 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 4 | 297 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 5 | 268 | ELEVATOR, LARGE | 10' - 0" | 6' - 8" | STAINLESS STEEL, POLISHED | -- |
| LEVEL 5 | 270 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |
| LEVEL 5 | 272 | INTERIOR, SINGLE | 3' - 0" | 7' - 0" | WOOD LAMINATE, LIGHT | TWO (2) |

Grand total: 150

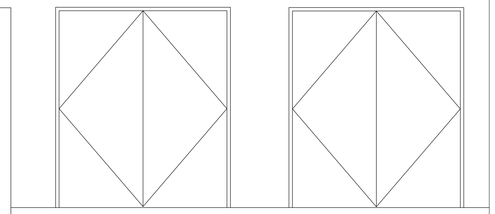
## DOOR TYPES




## WINDOW SCHEDULE

| LEVEL | TAG | TYPE | WIDTH | HEIGHT | SILL HEIGHT | COUNT |
|---|---|---|---|---|---|---|
| LEVEL 1 | 9 | 36" x 72" | 3' - 0" | 6' - 0" | 1' - 0" | 2 |
| LEVEL 1 | 18 | 55" x 72" | 4' - 6" | 6' - 0" | 1' - 0" | 21 |
| LEVEL 2 | 9 | 36" x 72" | 3' - 0" | 6' - 0" | 1' - 0" | 33 |
| LEVEL 2 | 18 | 55" x 72" | 4' - 6" | 6' - 0" | 1' - 0" | 10 |
| LEVEL 3 | 9 | 36" x 72" | 3' - 0" | 6' - 0" | 1' - 0" | 33 |
| LEVEL 5 | 18 | 55" x 72" | 4' - 6" | 6' - 0" | 1' - 0" | 14 |

Grand total: 113




## GENERAL NOTES

1. CONTRACTOR TO SUBMIT COMPLETE HARDWARE SHOP DRAWINGS/CUTS AND KEY SCHEDULE FOR DESIGNER'S APPROVAL.
2. METAL DOORS TO BE PAINTED GRAY
3. SOLID WOOD DOORS TO BE LIGHT WOOD LAMINATE
4. DOOR DETAILS TO BE PROVIDED BY MANUFACTURER

## HARDWARE NOTES

1. STEEL DOOR PULLS - BRUSHED STAINLESS STEEL PUSHPLATE AND HEAVY DUTY DEADBOLT
2. BRUSHED STAINLESS STEEL LEVER HANDLES

## DOOR NOTES

1. VERIFY THAT ALL DOORS AND DOOR HARDWARE MEET THE REQUIREMENTS OF ALL GOVERNING CODES AND STANDARDS NOTIFY THE ARCHITECT IMMEDIATELY IN CASE OF DISCREPANCY.
2. FIELD MEASURE, AS REQUIRED ALL DOORS PRIOR TO FABRICATION.
3. PROVIDE A SIGN ON OR NEAR THE MAIN EXIT DOOR READING. THIS DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS.
4. LATCHING AND LOCKING DOORS THAT ARE HAND OPERATED SHALL BE OPERABLE WITH A SINGLE EFFORT WITHOUT REQUIRING THE ABILITY TO GRASP THE HARDWARE (LEVER OR PUSH TYPE). VERIFY CONDITION AT EXISTING DOORS.
5. MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED THE FOLLOWING PER

   INTERIOR DOORS-5 POUNDS
   EXTERIOR DOORS- 5 POUNDS
   ARE DOORS-15 POUNDS

6. RATED DOORS SHALL COMPLY WITH REQUIREMENTS OF ALL GOVERNING CODES AND STANDARDS.
7. ALL HARDWARE TO BE LEVER-TYPE PER STATE OF ALL GOVERNING CODES AND STANDARDS AND THE ADA.
8. OPENING HARDWARE IS TO BE CENTERED BERWE4EN 30" AND 44" ABOVE FINISH
9. FLOOR CONTRACTOR TO VERIFY EXTERIOR DOORS PER ANSI STANDARD
10. PROVIDE WEATHER SEALS ON ALL EXTERIOR DOORS PER ANSI STANDARDS.
11. CONTRACTOR IS RESPONSIBLE TO COORDINATE AND VERIFY ALL DOOR FRAME THROAT THICKNESS FOR EACH LOCATION.
12. ALL DOOR FRAMES TO BE FACTORY FINISHED.
13. ALL DOOR STOPS TO HAVE 2ND BACKING IN THE WALL BEHIND.
14. MAXIMUM UNDERCUT OF ALL DOORS NOT IN A RATED CORRIDOR SHALL NOT EXCEED 1/2" ABOVE FINISH FLOOR SURFACE.
15. CONTRACTOR SHALL REFININSH ANY BLEMISHED DOOR OR REPLACE SAID DOOR IF NOT ABLE TO REFINISH TO AS NEW CONDITIONS.

## GLAZING NOTES

1. EACH LIGHT SHALL BEAR THE MANUFACTURERS LABEL DESIGNATING THE TYPE AND THICKNESS OF THE
2. GLASS.SHALL BE FIRMLY SUPPORTED ON ALL FOUR EDGES.
3. FIELD MEASURE ALL OPENINGS PRIOR TO FABRICATION.
4. ALL GLAZING WITHIN A 24" ARC OF EITHER EDGE OF A DOOR AND WITHIN 60" OF THE FLOOR SHALL BE TEMPERED.
5. ALL GLASS SHALL COMPLY WITH THE REQUIREMENTS OF STATE AND LOCAL CODES.

BALL STATE UNIVERSITY

EST. 1918

R. Wayne Estopinal College of Architecture and Planning

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 01/25/20 | FIRST SUBMITTAL |
| 2 | 04/06/20 | SECOND SUBMITTAL |
| 3 | 04/24/20 | FINAL SUBMITTAL |

PROJECT:

# MAIN STREET PERFORMING ARTS CENTER

103 E MAIN ST.
MUNCIE, INDIANA 47304

SHEET TITLE:

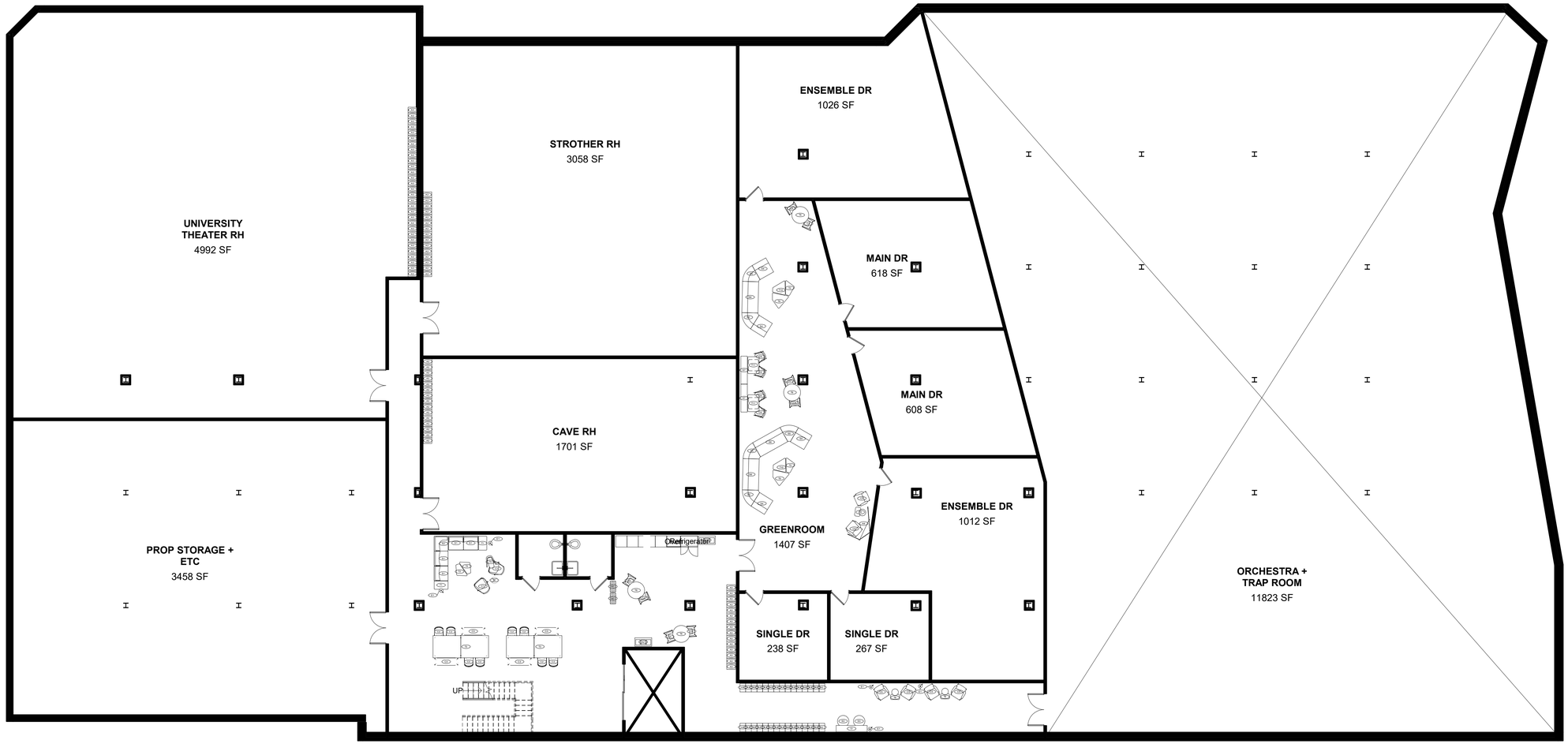
## DOOR AND WINDOW SCHEDULE

DRAWN BY: SCHRIPSEMA, EMILY

DATE: 03/25/2020

SHEET NUMBER:

A4.1




1 LEVEL 0 FURNITURE PLAN
1" = 10'-0"

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| | | | 12 |
| A1 | STEELCASE | Extremis - Sticks - Space Divider 60x30 | 17 |
| A2 | STEELCASE | Steelcase - Victor2 - Mobile Unit | 6 |
| A3 | STEELCASE | Steelcase - TS Series - Storage - Locker | 129 |
| A4 | TURNSTONE | Steelcase Turnstone - Clipper - Screen - 56H | 5 |
| A5 | STEELCASE | SGLVPP1 | 5 |
| A6 | WEST ELM | West Elm Work Collection - Greenpoint - Private Office - Bookcase | 6 |
| A7 | STEELCASE | Steelcase - Elective Elements - Plinth Base - Wardrobe | 1 |
| A8 | STEELCASE | Steelcase - Elective Elements - Worksurface - Straight - 24D | 1 |
| A9 | STEELCASE | Steelcase SnapCab - Pod - M | 2 |
| A10 | STEELCASE | Steelcase - Flex - Wall Rails | 1 |
| A11 | STEELCASE | Steelcase - Flex - Cart | 1 |
| A12 | STEELCASE | MIO - Nomad System Room Dividers - Felt Pro | 1 |
| C1 | ORANGEBOX | 1544700972AVI_Seating-Range | 6 |
| C2 | ORANGEBOX | 1544703318CUBB-Seating-Range | 12 |
| C3 | ORANGEBOX | Orangebox_Furniture_SoftSeating_Cubb | 6 |
| C4 | TURNSTONE | Steelcase Turnstone - Scoop - Seating - Stool | 42 |
| C5 | COALESSE | Steelcase Coalesse - CH25 Paddle Chair | 10 |
| C6 | COALESSE | Steelcase Coalesse - LessThanFive - Seating - Chair | 20 |
| C7 | BLU DOT | Blu Dot - Clutch Leather Lounge Chair | 2 |
| C8 | STEELCASE | Steelcase - Seating - SILQ - Stool | 12 |

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| C9 | STEELCASE | Steelcase - Seating - Series 1 - Task Chair | 3 |
| C10 | COALESSE | Steelcase Coalesse - CH445 Wing Chair | 3 |
| C12 | COALESSE | Steelcase Coalesse - CH24 Wishbone - Seating | 2 |
| C13 | COALESSE | Steelcase Coalesse - Massaud - Conference Chair - Mid Back | 1 |
| E1 | STEELCASE | Steelcase - Thread - Power Hub1 | 23 |
| E2 | STEELCASE | Flos - Tab LED | 1 |
| E3 | BLU DOT | Blu Dot - Flask Table Lamp | 1 |
| S1 | STEELCASE | Steelcase - B-Free - Seating - Cube | 16 |
| S2 | STEELCASE | Steelcase - B-Free - Seating - Cube | 4 |
| S3 | TURNSTONE | Steelcase Turnstone - Alight - Seating - Ottoman | 2 |
| S4 | TURNSTONE | Steelcase Turnstone - Campfire - Lounge | 12 |
| S5 | TURNSTONE | Steelcase Turnstone - Campfire - Lounge - Inside Corner | 16 |
| S6 | TURNSTONE | Steelcase Turnstone - Campfire - Lounge | 10 |
| S7 | COALESSE | Steelcase Coalesse - Davos - Seating - Bench | 6 |
| S9 | STEELCASE | Steelcase Health - Surround - 83W | 1 |
| S10 | BLU DOT | Blu Dot - Hecks - Ottoman | 8 |
| S11 | COALESSE | Steelcase Coalesse - Hosu - Seating - Lounge Chair - Two Seat | 2 |
| S12 | COALESSE | Steelcase Coalesse - Hosu - Seating - Lounge Chair | 1 |
| S13 | COALESSE | Steelcase Coalesse - Sebastopol - Table - Small | 11 |
| S14 | COALESSE | Steelcase Coalesse - Sebastopol - Table - Large | 8 |

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| T1 | STEELCASE | Steelcase - B-Free - Occasional Table - Coffee | 6 |
| T2 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Three Leg1 | 12 |
| T3 | ORANGEBOX | 1544704068CUBB-TABLES_Multi-Meeting-Tables_Range | 3 |
| T4 | COALESSE | Steelcase Coalesse - Free Stand | 5 |
| T5 | STEELCASE | VCBBU50 | 3 |
| T6 | STEELCASE | Steelcase - Groupwork - Table - Top - Round | 19 |
| T7 | TURNSTONE | Steelcase Turnstone - Campfire - Slim Table | 1 |
| T8 | ORANGEBOX | Viccarbe_TIERS-Composition-A | 5 |
| T9 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Three Leg | 6 |
| T10 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Three Leg | 6 |
| T11 | COALESSE | Steelcase Coalesse - Lagunitas - Table - Work1 | 10 |
| T12 | BLU DOT | Blu Dot - Hecks - Ottoman - Leather | 1 |
| T13 | TURNSTONE | Steelcase Turnstone - Campfire - Big Table | 2 |
| T14 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Round1 | 4 |
| T15 | STEELCASE | Steelcase - Migration - Desk - Rectangular1 | 3 |
| T16 | TURNSTONE | Steelcase Turnstone - Campfire - Skate Table | 4 |
| T17 | COALESSE | Steelcase Coalesse - Montara650 - Table - Work Height - Round1 | 3 |

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| T18 | STEELCASE | Viccarbe_UP-IN-THE-AIR | 4 |
| T19 | STEELCASE | Steelcase - Elective Elements - Height Adjustable Worksurface - 36D - Full Top | 1 |
| T20 | STEELCASE | Steelcase - Flex - Table - Slim | 2 |

Grand total: 528

N

BALL STATE UNIVERSITY
EST. 1918
R. Wayne Estopinal College of Architecture and Planning

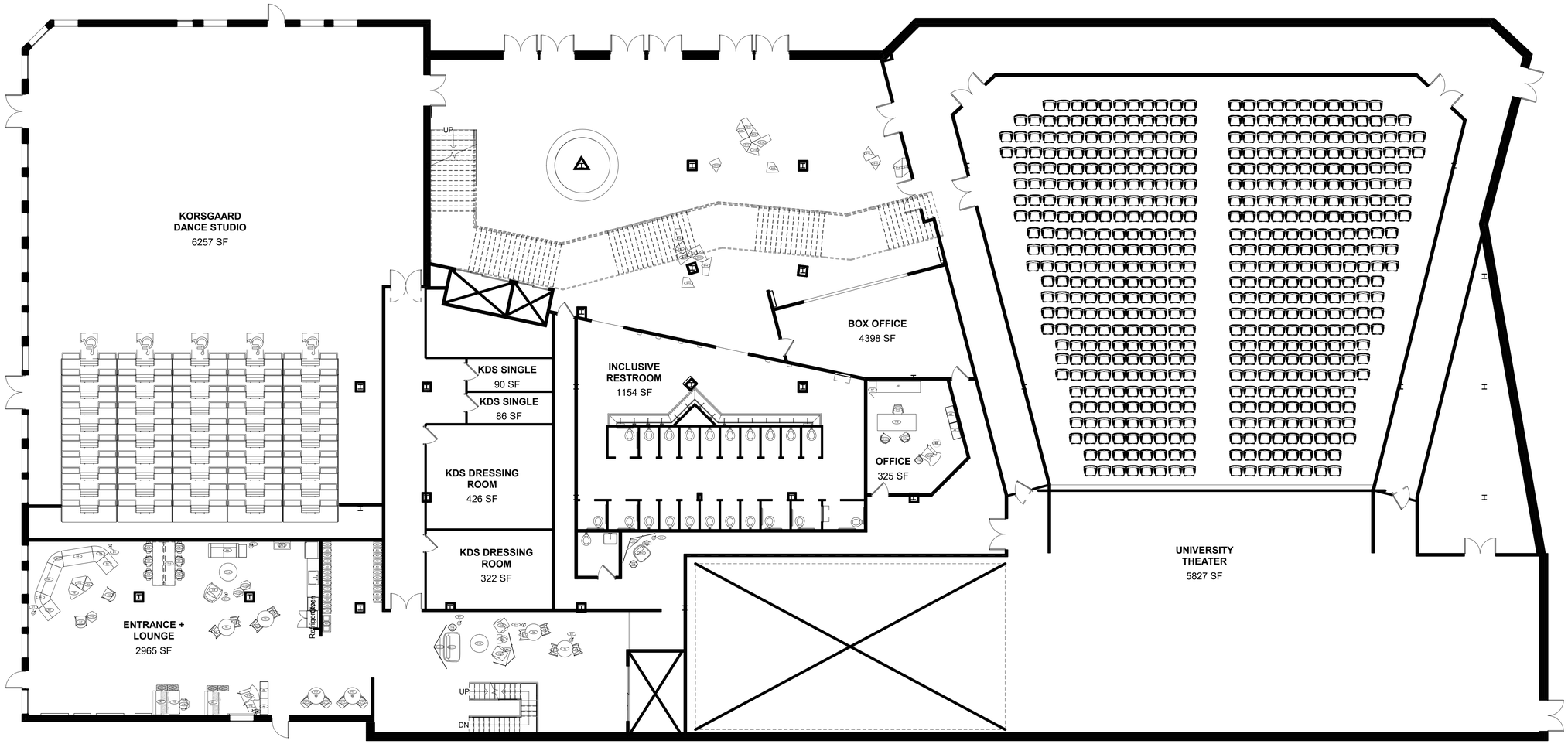
| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 03/25/20 | FIRST SUBMITTAL |
| 2 | 04/06/20 | SECOND SUBMITTAL |
| 3 | 04/24/20 | FINAL SUBMITTAL |

PROJECT:
MAIN STREET PERFORMING ARTS CENTER
103 E MAIN ST.
MUNCIE, INDIANA 47304

SHEET TITLE:
FURNITURE PLAN LEVEL 0

DRAWN BY:
SCHRIPSEMA, EMILY
DATE:
03/25/2020

SHEET NUMBER:
IA1.0




1 LEVEL 1 FURNITURE PLAN
1" = 10'-0"

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| | | | 12 |
| A1 | STEELCASE | Extremis - Sticks - Space Divider 60x30 | 17 |
| A2 | STEELCASE | Steelcase - Victor2 - Mobile Unit | 6 |
| A3 | STEELCASE | Steelcase - TS Series - Storage - Locker | 129 |
| A4 | TURNSTONE | Steelcase Turnstone - Clipper - Screen - 56H | 5 |
| A5 | STEELCASE | SGLVPP1 | 5 |
| A6 | WEST ELM | West Elm Work Collection - Greenpoint - Private Office - Bookcase | 6 |
| A7 | STEELCASE | Steelcase - Elective Elements - Plinth Base - Wardrobe | 1 |
| A8 | STEELCASE | Steelcase - Elective Elements - Worksurface - Straight - 24D | 1 |
| A9 | STEELCASE | Steelcase SnapCab - Pod - M | 2 |
| A10 | STEELCASE | Steelcase - Flex - Wall Rails | 1 |
| A11 | STEELCASE | Steelcase - Flex - Cart | 1 |
| A12 | STEELCASE | MIO - Nomad System Room Dividers - Felt Pro | 1 |
| C1 | ORANGEBOX | 1544700972AVI_Seating-Range | 6 |
| C2 | ORANGEBOX | 1544703318CUBB-Seating-Range | 12 |
| C3 | ORANGEBOX | Orangebox_Furniture_SoftSeating_Cubb | 6 |
| C4 | TURNSTONE | Steelcase Turnstone - Scoop - Seating - Stool | 42 |
| C5 | COALESSE | Steelcase Coalesse - CH25 Paddle Chair | 10 |
| C6 | COALESSE | Steelcase Coalesse - LessThanFive - Seating - Chair | 20 |
| C7 | BLU DOT | Blu Dot - Clutch Leather Lounge Chair | 2 |
| C8 | STEELCASE | Steelcase - Seating - SILQ - Stool | 12 |

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| C9 | STEELCASE | Steelcase - Seating - Series 1 - Task Chair | 3 |
| C10 | COALESSE | Steelcase Coalesse - CH445 Wing Chair | 3 |
| C12 | COALESSE | Steelcase Coalesse - CH24 Wishbone - Seating | 2 |
| C13 | COALESSE | Steelcase Coalesse - Massaud - Conference Chair - Mid Back | 1 |
| E1 | STEELCASE | Steelcase - Thread - Power Hub1 | 23 |
| E2 | STEELCASE | Flos - Tab LED | 1 |
| E3 | BLU DOT | Blu Dot - Flask Table Lamp | 1 |
| S1 | STEELCASE | Steelcase - B-Free - Seating - Cube | 16 |
| S2 | STEELCASE | Steelcase - B-Free - Seating - Cube | 4 |
| S3 | TURNSTONE | Steelcase Turnstone - Alight - Seating - Ottoman | 2 |
| S4 | TURNSTONE | Steelcase Turnstone - Campfire - Lounge | 12 |
| S5 | TURNSTONE | Steelcase Turnstone - Campfire - Lounge - Inside Corner | 16 |
| S6 | TURNSTONE | Steelcase Turnstone - Campfire - Lounge | 10 |
| S7 | COALESSE | Steelcase Coalesse - Davos - Seating - Bench | 6 |
| S9 | STEELCASE | Steelcase Health - Surround - 83W | 1 |
| S10 | BLU DOT | Blu Dot - Hecks - Ottoman | 8 |
| S11 | COALESSE | Steelcase Coalesse - Hosu - Seating - Lounge Chair - Two Seat | 2 |
| S12 | COALESSE | Steelcase Coalesse - Hosu - Seating - Lounge Chair | 1 |
| S13 | COALESSE | Steelcase Coalesse - Sebastopol - Table - Small | 11 |
| S14 | COALESSE | Steelcase Coalesse - Sebastopol - Table - Large | 8 |

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| T1 | STEELCASE | Steelcase - B-Free - Occasional Table - Coffee | 6 |
| T2 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Three Leg1 | 12 |
| T3 | ORANGEBOX | 1544704068CUBB-TABLES_Multi-Meeting -Tables_Range | 3 |
| T4 | COALESSE | Steelcase Coalesse - Free Stand | 5 |
| T5 | STEELCASE | VCBBU50 | 3 |
| T6 | STEELCASE | Steelcase - Groupwork - Table - Top - Round | 19 |
| T7 | TURNSTONE | Steelcase Turnstone - Campfire - Slim Table | 1 |
| T8 | ORANGEBOX | Viccarbe_TIERS-Composition-A | 5 |
| T9 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Three Leg | 6 |
| T10 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Three Leg | 6 |
| T11 | COALESSE | Steelcase Coalesse - Lagunitas - Table - Work1 | 10 |
| T12 | BLU DOT | Blu Dot - Hecks - Ottoman - Leather | 1 |
| T13 | TURNSTONE | Steelcase Turnstone - Campfire - Big Table | 2 |
| T14 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Round1 | 4 |
| T15 | STEELCASE | Steelcase - Migration - Desk - Rectangular1 | 3 |
| T16 | TURNSTONE | Steelcase Turnstone - Campfire - Skate Table | 4 |
| T17 | COALESSE | Steelcase Coalesse - Montara650 - Table - Work Height - Round1 | 3 |

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| T18 | STEELCASE | Viccarbe_UP-IN-THE-AIR | 4 |
| T19 | STEELCASE | Steelcase - Elective Elements - Height Adjustable Worksurface - 36D - Full Top | 1 |
| T20 | STEELCASE | Steelcase - Flex - Table - Slim | 2 |

Grand total: 528


BALL STATE UNIVERSITY
EST. 1918
R. Wayne Estopinal College of Architecture and Planning

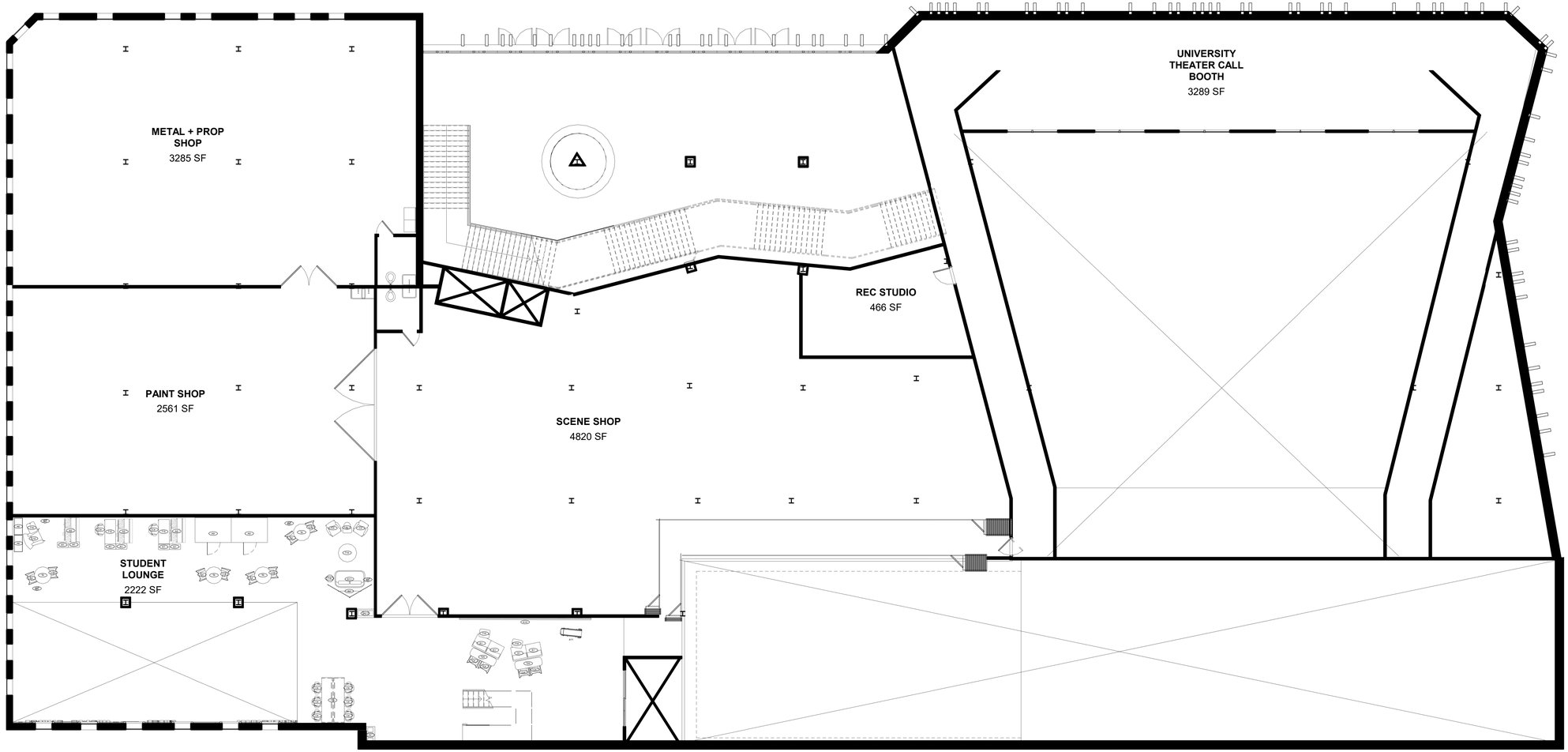

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 03/25/20 | FIRST SUBMITTAL |
| 2 | 04/06/20 | SECOND SUBMITTAL |
| 3 | 04/24/20 | FINAL SUBMITTAL |

PROJECT:
# MAIN STREET PERFORMING ARTS CENTER
103 E MAIN ST.
MUNCIE, INDIANA 47304

SHEET TITLE:
## FURNITURE PLAN LEVEL 1

DRAWN BY:
SCHRIPSEMA, EMILY
DATE:
03/25/2020

SHEET NUMBER:
# IA1.1




1 LEVEL 2 FURNITURE PLAN
1" = 10'-0"

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| | | | 12 |
| A1 | STEELCASE | Extremis - Sticks - Space Divider 60x30 | 17 |
| A2 | STEELCASE | Steelcase - Victor2 - Mobile Unit | 6 |
| A3 | STEELCASE | Steelcase - TS Series - Storage - Locker | 129 |
| A4 | TURNSTONE | Steelcase Turnstone - Clipper - Screen - 56H | 5 |
| A5 | STEELCASE | SGLVPP1 | 5 |
| A6 | WEST ELM | West Elm Work Collection - Greenpoint - Private Office - Bookcase | 6 |
| A7 | STEELCASE | Steelcase - Elective Elements - Plinth Base - Wardrobe | 1 |
| A8 | STEELCASE | Steelcase - Elective Elements - Worksurface - Straight - 24D | 1 |
| A9 | STEELCASE | Steelcase SnapCab - Pod - M | 2 |
| A10 | STEELCASE | Steelcase - Flex - Wall Rails | 1 |
| A11 | STEELCASE | Steelcase - Flex - Cart | 1 |
| A12 | STEELCASE | MIO - Nomad System Room Dividers - Felt Pro | 1 |
| C1 | ORANGEBOX | 1544700972AVI_Seating-Range | 6 |
| C2 | ORANGEBOX | 1544703318CUBB-Seating-Range | 12 |
| C3 | ORANGEBOX | Orangebox_Furniture_SoftSeating_Cubb | 6 |
| C4 | TURNSTONE | Steelcase Turnstone - Scoop - Seating - Stool | 42 |
| C5 | COALESSE | Steelcase Coalesse - CH25 Paddle Chair | 10 |
| C6 | COALESSE | Steelcase Coalesse - LessThanFive - Seating - Chair | 20 |
| C7 | BLU DOT | Blu Dot - Clutch Leather Lounge Chair | 2 |
| C8 | STEELCASE | Steelcase - Seating - SILQ - Stool | 12 |

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| C9 | STEELCASE | Steelcase - Seating - Series 1 - Task Chair | 3 |
| C10 | COALESSE | Steelcase Coalesse - CH445 Wing Chair | 3 |
| C12 | COALESSE | Steelcase Coalesse - CH24 Wishbone - Seating | 2 |
| C13 | COALESSE | Steelcase Coalesse - Massaud - Conference Chair - Mid Back | 1 |
| E1 | STEELCASE | Steelcase - Thread - Power Hub1 | 23 |
| E2 | STEELCASE | Flos - Tab LED | 1 |
| E3 | BLU DOT | Blu Dot - Flask Table Lamp | 1 |
| S1 | STEELCASE | Steelcase - B-Free - Seating - Cube | 16 |
| S2 | STEELCASE | Steelcase - B-Free - Seating - Cube | 4 |
| S3 | TURNSTONE | Steelcase Turnstone - Alight - Seating - Ottoman | 2 |
| S4 | TURNSTONE | Steelcase Turnstone - Campfire - Lounge | 12 |
| S5 | TURNSTONE | Steelcase Turnstone - Campfire - Lounge - Inside Corner | 16 |
| S6 | TURNSTONE | Steelcase Turnstone - Campfire - Lounge | 10 |
| S7 | COALESSE | Steelcase Coalesse - Davos - Seating - Bench | 6 |
| S9 | STEELCASE | Steelcase Health - Surround - 83W | 1 |
| S10 | BLU DOT | Blu Dot - Hecks - Ottoman | 8 |
| S11 | COALESSE | Steelcase Coalesse - Hosu - Seating - Lounge Chair - Two Seat | 2 |
| S12 | COALESSE | Steelcase Coalesse - Hosu - Seating - Lounge Chair | 1 |
| S13 | COALESSE | Steelcase Coalesse - Sebastopol - Table - Small | 11 |
| S14 | COALESSE | Steelcase Coalesse - Sebastopol - Table - Large | 8 |

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| T1 | STEELCASE | Steelcase - B-Free - Occasional Table - Coffee | 6 |
| T2 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Three Leg1 | 12 |
| T3 | ORANGEBOX | 1544704068CUBB-TABLES_Multi-Meeting -Tables_Range | 3 |
| T4 | COALESSE | Steelcase Coalesse - Free Stand | 5 |
| T5 | STEELCASE | VCBBU50 | 3 |
| T6 | STEELCASE | Steelcase - Groupwork - Table - Top - Round | 19 |
| T7 | TURNSTONE | Steelcase Turnstone - Campfire - Slim Table | 1 |
| T8 | ORANGEBOX | Viccarbe_TIERS-Composition-A | 5 |
| T9 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Three Leg | 6 |
| T10 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Three Leg | 6 |
| T11 | COALESSE | Steelcase Coalesse - Lagunitas - Table - Work1 | 10 |
| T12 | BLU DOT | Blu Dot - Hecks - Ottoman - Leather | 1 |
| T13 | TURNSTONE | Steelcase Turnstone - Campfire - Big Table | 2 |
| T14 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Round1 | 4 |
| T15 | STEELCASE | Steelcase - Migration - Desk - Rectangular1 | 3 |
| T16 | TURNSTONE | Steelcase Turnstone - Campfire - Skate Table | 4 |
| T17 | COALESSE | Steelcase Coalesse - Montara650 - Table - Work Height - Round1 | 3 |

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| T18 | STEELCASE | Viccarbe_UP-IN-THE-AIR | 4 |
| T19 | STEELCASE | Steelcase - Elective Elements - Height Adjustable Worksurface - 36D - Full Top | 1 |
| T20 | STEELCASE | Steelcase - Flex - Table - Slim | 2 |

Grand total: 528

N

BALL STATE UNIVERSITY
EST. 1918
R. Wayne Estopinal College of Architecture and Planning

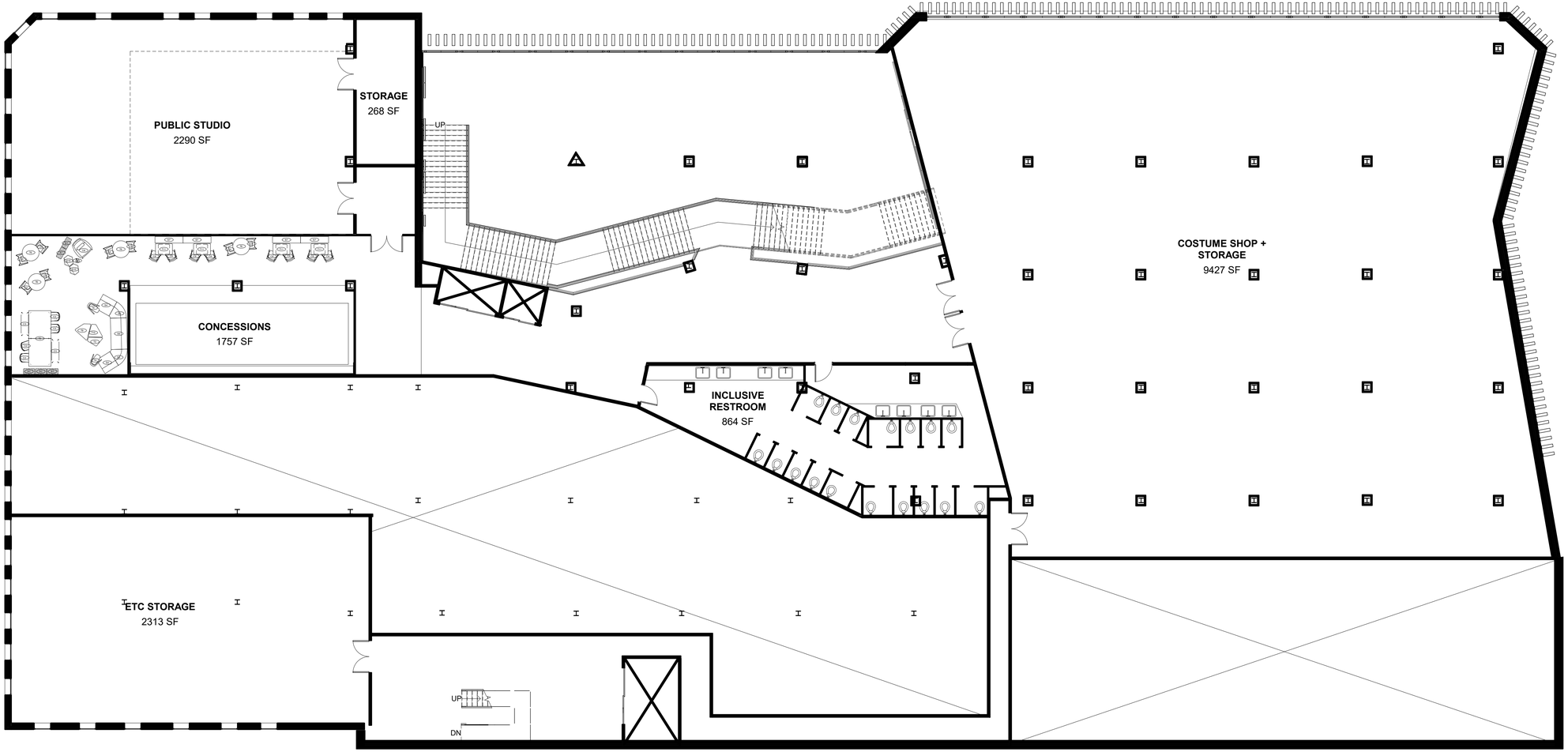
| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 03/25/20 | FIRST SUBMITTAL |
| 2 | 04/08/20 | SECOND SUBMITTAL |
| 3 | 04/24/20 | FINAL SUBMITTAL |

PROJECT
MAIN STREET PERFORMING ARTS CENTER
103 E MAIN ST.
MUNCIE, INDIANA 47304

SHEET TITLE:
FURNITURE PLAN LEVEL 2

DRAWN BY:
SCHRIPSEMA, EMILY
DATE:
03/25/2020

SHEET NUMBER:
IA1.2




1 LEVEL 3 FURNITURE PLAN
1" = 10'-0"

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| | | | 12 |
| A1 | STEELCASE | Extremis - Sticks - Space Divider 60x30 | 17 |
| A2 | STEELCASE | Steelcase - Victor2 - Mobile Unit | 6 |
| A3 | STEELCASE | Steelcase - TS Series - Storage - Locker | 129 |
| A4 | TURNSTONE | Steelcase Turnstone - Clipper - Screen - 56H | 5 |
| A5 | STEELCASE | SGLVPP1 | 5 |
| A6 | WEST ELM | West Elm Work Collection - Greenpoint - Private Office - Bookcase | 6 |
| A7 | STEELCASE | Steelcase - Elective Elements - Plinth Base - Wardrobe | 1 |
| A8 | STEELCASE | Steelcase - Elective Elements - Worksurface - Straight - 24D | 1 |
| A9 | STEELCASE | Steelcase SnapCab - Pod - M | 2 |
| A10 | STEELCASE | Steelcase - Flex - Wall Rails | 1 |
| A11 | STEELCASE | Steelcase - Flex - Cart | 1 |
| A12 | STEELCASE | MIO - Nomad System Room Dividers - Felt Pro | 1 |
| C1 | ORANGEBOX | 1544700972AVI_Seating-Range | 6 |
| C2 | ORANGEBOX | 1544703318CUBB-Seating-Range | 12 |
| C3 | ORANGEBOX | Orangebox_Furniture_SoftSeating_Cubb | 6 |
| C4 | TURNSTONE | Steelcase Turnstone - Scoop - Seating - Stool | 42 |
| C5 | COALESSE | Steelcase Coalesse - CH25 Paddle Chair | 10 |
| C6 | COALESSE | Steelcase Coalesse - LessThanFive - Seating - Chair | 20 |
| C7 | BLU DOT | Blu Dot - Clutch Leather Lounge Chair | 2 |
| C8 | STEELCASE | Steelcase - Seating - SILQ - Stool | 12 |

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| C9 | STEELCASE | Steelcase - Seating - Series 1 - Task Chair | 3 |
| C10 | COALESSE | Steelcase Coalesse - CH445 Wing Chair | 3 |
| C12 | COALESSE | Steelcase Coalesse - CH24 Wishbone - Seating | 2 |
| C13 | COALESSE | Steelcase Coalesse - Massaud - Conference Chair - Mid Back | 1 |
| E1 | STEELCASE | Steelcase - Thread - Power Hub1 | 23 |
| E2 | STEELCASE | Flos - Tab LED | 1 |
| E3 | BLU DOT | Blu Dot - Flask Table Lamp | 1 |
| S1 | STEELCASE | Steelcase - B-Free - Seating - Cube | 16 |
| S2 | STEELCASE | Steelcase - B-Free - Seating - Cube | 4 |
| S3 | TURNSTONE | Steelcase Turnstone - Alight - Seating - Ottoman | 2 |
| S4 | TURNSTONE | Steelcase Turnstone - Campfire - Lounge | 12 |
| S5 | TURNSTONE | Steelcase Turnstone - Campfire - Lounge - Inside Corner | 16 |
| S6 | TURNSTONE | Steelcase Turnstone - Campfire - Lounge | 10 |
| S7 | COALESSE | Steelcase Coalesse - Davos - Seating - Bench | 6 |
| S9 | STEELCASE | Steelcase Health - Surround - 83W | 1 |
| S10 | BLU DOT | Blu Dot - Hecks - Ottoman | 8 |
| S11 | COALESSE | Steelcase Coalesse - Hosu - Seating - Lounge Chair - Two Seat | 2 |
| S12 | COALESSE | Steelcase Coalesse - Hosu - Seating - Lounge Chair | 1 |
| S13 | COALESSE | Steelcase Coalesse - Sebastopol - Table - Small | 11 |
| S14 | COALESSE | Steelcase Coalesse - Sebastopol - Table - Large | 8 |

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| T1 | STEELCASE | Steelcase - B-Free - Occasional Table - Coffee | 6 |
| T2 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Three Leg1 | 12 |
| T3 | ORANGEBOX | 1544704068CUBB-TABLES_Multi-Meeting-Tables_Range | 3 |
| T4 | COALESSE | Steelcase Coalesse - Free Stand | 5 |
| T5 | STEELCASE | VCBBU50 | 3 |
| T6 | STEELCASE | Steelcase - Groupwork - Table - Top - Round | 19 |
| T7 | TURNSTONE | Steelcase Turnstone - Campfire - Slim Table | 1 |
| T8 | ORANGEBOX | Viccarbe_TIERS-Composition-A | 5 |
| T9 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Three Leg | 6 |
| T10 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Three Leg | 6 |
| T11 | COALESSE | Steelcase Coalesse - Lagunitas - Table - Work1 | 10 |
| T12 | BLU DOT | Blu Dot - Hecks - Ottoman - Leather | 1 |
| T13 | TURNSTONE | Steelcase Turnstone - Campfire - Big Table | 2 |
| T14 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Round1 | 4 |
| T15 | STEELCASE | Steelcase - Migration - Desk - Rectangular1 | 3 |
| T16 | TURNSTONE | Steelcase Turnstone - Campfire - Skate Table | 4 |
| T17 | COALESSE | Steelcase Coalesse - Montara650 - Table - Work Height - Round1 | 3 |

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| T18 | STEELCASE | Viccarbe_UP-IN-THE-AIR | 4 |
| T19 | STEELCASE | Steelcase - Elective Elements - Height Adjustable Worksurface - 36D - Full Top | 1 |
| T20 | STEELCASE | Steelcase - Flex - Table - Slim | 2 |

Grand total: 528

N

BALL STATE UNIVERSITY
EST. 1918
R. Wayne Estopinal College of Architecture and Planning

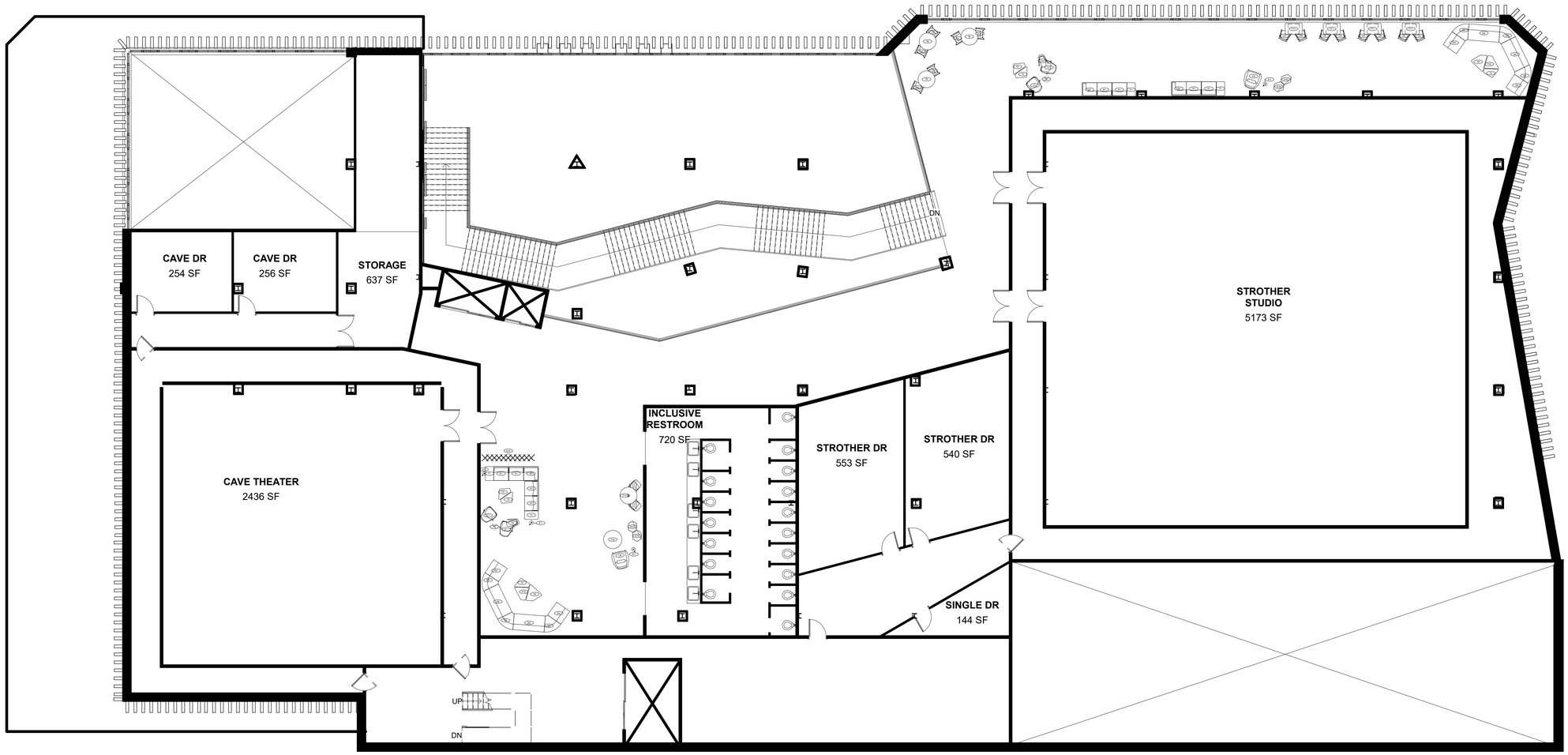
| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 03/25/20 | FIRST SUBMITTAL |
| 2 | 04/08/20 | SECOND SUBMITTAL |
| 3 | 04/24/20 | FINAL SUBMITTAL |

PROJECT:
MAIN STREET PERFORMING ARTS CENTER
103 E MAIN ST.
MUNCIE, INDIANA 47304

SHEET TITLE:
FURNITURE PLAN LEVEL 3

Drawn By:
SCHRIPSEMA, EMILY
DATE:
03/25/2020

SHEET NUMBER:
IA1.3




1 LEVEL 4 FURNITURE PLAN
1" = 10'-0"

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| | | | 12 |
| A1 | STEELCASE | Extremis - Sticks - Space Divider 60x30 | 17 |
| A2 | STEELCASE | Steelcase - Victor2 - Mobile Unit | 6 |
| A3 | STEELCASE | Steelcase - TS Series - Storage - Locker | 129 |
| A4 | TURNSTONE | Steelcase Turnstone - Clipper - Screen - 56H | 5 |
| A5 | STEELCASE | SGLVPP1 | 5 |
| A6 | WEST ELM | West Elm Work Collection - Greenpoint - Private Office - Bookcase | 6 |
| A7 | STEELCASE | Steelcase - Elective Elements - Plinth Base - Wardrobe | 1 |
| A8 | STEELCASE | Steelcase - Elective Elements - Worksurface - Straight - 24D | 1 |
| A9 | STEELCASE | Steelcase SnapCab - Pod - M | 2 |
| A10 | STEELCASE | Steelcase - Flex - Wall Rails | 1 |
| A11 | STEELCASE | Steelcase - Flex - Cart | 1 |
| A12 | STEELCASE | MIO - Nomad System Room Dividers - Felt Pro | 1 |
| C1 | ORANGEBOX | 1544700972AVI_Seating-Range | 6 |
| C2 | ORANGEBOX | 1544703318CUBB-Seating-Range | 12 |
| C3 | ORANGEBOX | Orangebox_Furniture_SoftSeating_Cubb | 6 |
| C4 | TURNSTONE | Steelcase Turnstone - Scoop - Seating - Stool | 42 |
| C5 | COALESSE | Steelcase Coalesse - CH25 Paddle Chair | 10 |
| C6 | COALESSE | Steelcase Coalesse - LessThanFive - Seating - Chair | 20 |
| C7 | BLU DOT | Blu Dot - Clutch Leather Lounge Chair | 2 |
| C8 | STEELCASE | Steelcase - Seating - SILQ - Stool | 12 |

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| C9 | STEELCASE | Steelcase - Seating - Series 1 - Task Chair | 3 |
| C10 | COALESSE | Steelcase Coalesse - CH445 Wing Chair | 3 |
| C12 | COALESSE | Steelcase Coalesse - CH24 Wishbone - Seating | 2 |
| C13 | COALESSE | Steelcase Coalesse - Massaud - Conference Chair - Mid Back | 1 |
| E1 | STEELCASE | Steelcase - Thread - Power Hub1 | 23 |
| E2 | STEELCASE | Flos - Tab LED | 1 |
| E3 | BLU DOT | Blu Dot - Flask Table Lamp | 1 |
| S1 | STEELCASE | Steelcase - B-Free - Seating - Cube | 16 |
| S2 | STEELCASE | Steelcase - B-Free - Seating - Cube | 4 |
| S3 | TURNSTONE | Steelcase Turnstone - Alight - Seating - Ottoman | 2 |
| S4 | TURNSTONE | Steelcase Turnstone - Campfire - Lounge | 12 |
| S5 | TURNSTONE | Steelcase Turnstone - Campfire - Lounge - Inside Corner | 16 |
| S6 | TURNSTONE | Steelcase Turnstone - Campfire - Lounge | 10 |
| S7 | COALESSE | Steelcase Coalesse - Davos - Seating - Bench | 6 |
| S9 | STEELCASE | Steelcase Health - Surround - 83W | 1 |
| S10 | BLU DOT | Blu Dot - Hecks - Ottoman | 8 |
| S11 | COALESSE | Steelcase Coalesse - Hosu - Seating - Lounge Chair - Two Seat | 2 |
| S12 | COALESSE | Steelcase Coalesse - Hosu - Seating - Lounge Chair | 1 |
| S13 | COALESSE | Steelcase Coalesse - Sebastopol - Table - Small | 11 |
| S14 | COALESSE | Steelcase Coalesse - Sebastopol - Table - Large | 8 |

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| T1 | STEELCASE | Steelcase - B-Free - Occasional Table - Coffee | 6 |
| T2 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Three Leg1 | 12 |
| T3 | ORANGEBOX | 1544704068CUBB-TABLES_Multi-Meeting-Tables_Range | 3 |
| T4 | COALESSE | Steelcase Coalesse - Free Stand | 5 |
| T5 | STEELCASE | VCBBU50 | 3 |
| T6 | STEELCASE | Steelcase - Groupwork - Table - Top - Round | 19 |
| T7 | TURNSTONE | Steelcase Turnstone - Campfire - Slim Table | 1 |
| T8 | ORANGEBOX | Viccarbe_TIERS-Composition-A | 5 |
| T9 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Three Leg | 6 |
| T10 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Three Leg | 6 |
| T11 | COALESSE | Steelcase Coalesse - Lagunitas - Table - Work1 | 10 |
| T12 | BLU DOT | Blu Dot - Hecks - Ottoman - Leather | 1 |
| T13 | TURNSTONE | Steelcase Turnstone - Campfire - Big Table | 2 |
| T14 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Round1 | 4 |
| T15 | STEELCASE | Steelcase - Migration - Desk - Rectangular1 | 3 |
| T16 | TURNSTONE | Steelcase Turnstone - Campfire - Skate Table | 4 |
| T17 | COALESSE | Steelcase Coalesse - Montara650 - Table - Work Height - Round1 | 3 |

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| T18 | STEELCASE | Viccarbe_UP-IN-THE-AIR | 4 |
| T19 | STEELCASE | Steelcase - Elective Elements - Height Adjustable Worksurface - 36D - Full Top | 1 |
| T20 | STEELCASE | Steelcase - Flex - Table - Slim | 2 |

Grand total: 528

N

BALL STATE UNIVERSITY
EST. 1918
R. Wayne Estopinal College of Architecture and Planning

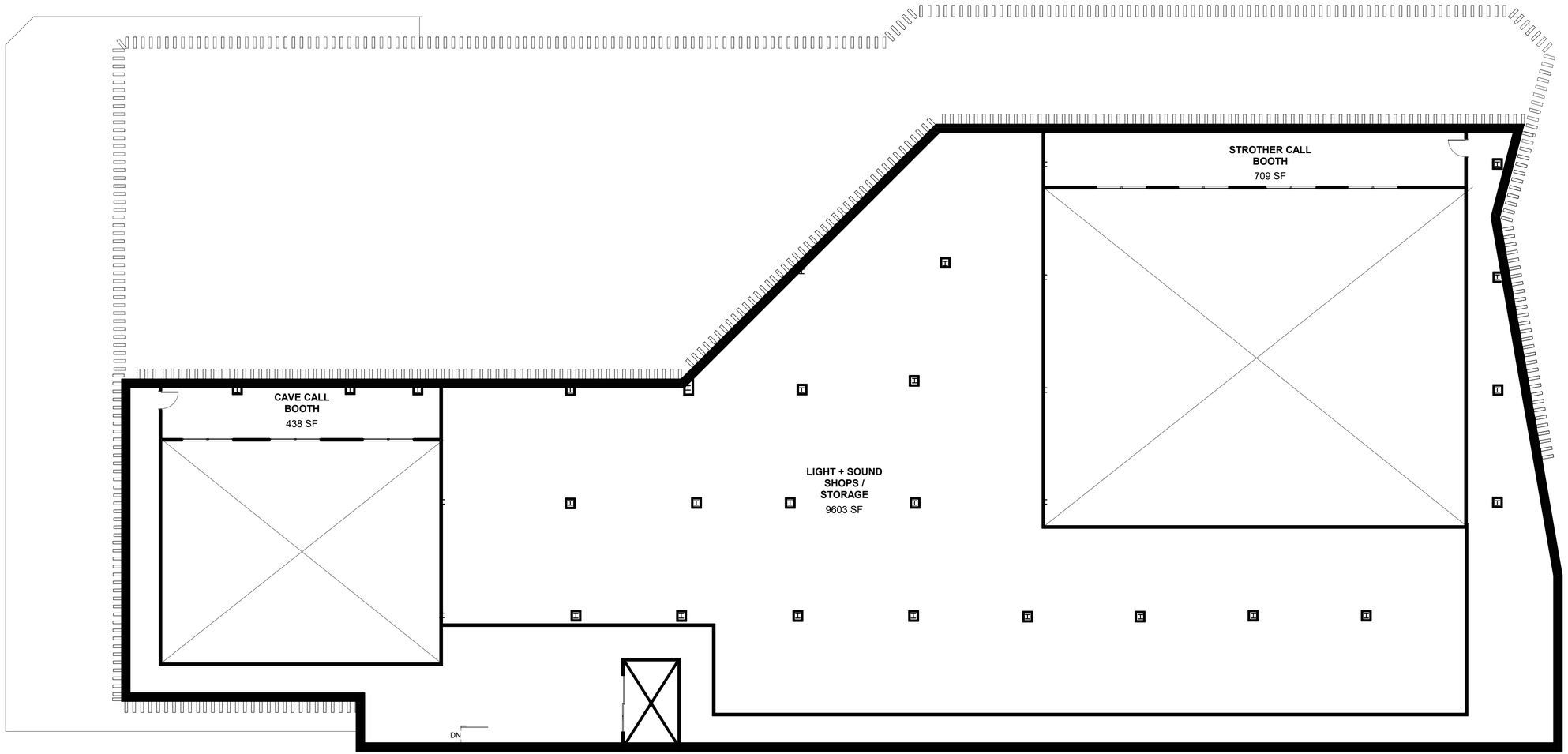
| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 03/25/25 | FIRST SUBMITTAL |
| 2 | 04/04/25 | SECOND SUBMITTAL |
| 3 | 04/24/25 | FINAL SUBMITTAL |

PROJECT:
MAIN STREET PERFORMING ARTS CENTER
103 E MAIN ST.
MUNCIE, INDIANA 47304

SHEET TITLE:
FURNITURE PLAN LEVEL 4

DRAWN BY:
SCHRIPSEMA, EMILY
DATE:
03/25/2020

SHEET NUMBER:
IA1.4




1 LEVEL 5 FURNITURE PLAN
1" = 10'-0"

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| | | | 12 |
| A1 | STEELCASE | Extremis - Sticks - Space Divider 60x30 | 17 |
| A2 | STEELCASE | Steelcase - Victor2 - Mobile Unit | 6 |
| A3 | STEELCASE | Steelcase - TS Series - Storage - Locker | 129 |
| A4 | TURNSTONE | Steelcase Turnstone - Clipper - Screen - 56H | 5 |
| A5 | STEELCASE | SGLVPP1 | 5 |
| A6 | WEST ELM | West Elm Work Collection - Greenpoint - Private Office - Bookcase | 6 |
| A7 | STEELCASE | Steelcase - Elective Elements - Plinth Base - Wardrobe | 1 |
| A8 | STEELCASE | Steelcase - Elective Elements - Worksurface - Straight - 24D | 1 |
| A9 | STEELCASE | Steelcase SnapCab - Pod - M | 2 |
| A10 | STEELCASE | Steelcase - Flex - Wall Rails | 1 |
| A11 | STEELCASE | Steelcase - Flex - Cart | 1 |
| A12 | STEELCASE | MIO - Nomad System Room Dividers - Felt Pro | 1 |
| C1 | ORANGEBOX | 1544700972AVI_Seating-Range | 6 |
| C2 | ORANGEBOX | 1544703318CUBB-Seating-Range | 12 |
| C3 | ORANGEBOX | Orangebox_Furniture_SoftSeating_Cubb | 6 |
| C4 | TURNSTONE | Steelcase Turnstone - Scoop - Seating - Stool | 42 |
| C5 | COALESSE | Steelcase Coalesse - CH25 Paddle Chair | 10 |
| C6 | COALESSE | Steelcase Coalesse - LessThanFive - Seating - Chair | 20 |
| C7 | BLU DOT | Blu Dot - Clutch Leather Lounge Chair | 2 |
| C8 | STEELCASE | Steelcase - Seating - SILQ - Stool | 12 |

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| C9 | STEELCASE | Steelcase - Seating - Series 1 - Task Chair | 3 |
| C10 | COALESSE | Steelcase Coalesse - CH445 Wing Chair | 3 |
| C12 | COALESSE | Steelcase Coalesse - CH24 Wishbone - Seating | 2 |
| C13 | COALESSE | Steelcase Coalesse - Massaud - Conference Chair - Mid Back | 1 |
| E1 | STEELCASE | Steelcase - Thread - Power Hub1 | 23 |
| E2 | STEELCASE | Flos - Tab LED | 1 |
| E3 | BLU DOT | Blu Dot - Flask Table Lamp | 1 |
| S1 | STEELCASE | Steelcase - B-Free - Seating - Cube | 16 |
| S2 | STEELCASE | Steelcase - B-Free - Seating - Cube | 4 |
| S3 | TURNSTONE | Steelcase Turnstone - Alight - Seating - Ottoman | 2 |
| S4 | TURNSTONE | Steelcase Turnstone - Campfire - Lounge | 12 |
| S5 | TURNSTONE | Steelcase Turnstone - Campfire - Lounge - Inside Corner | 16 |
| S6 | TURNSTONE | Steelcase Turnstone - Campfire - Lounge | 10 |
| S7 | COALESSE | Steelcase Coalesse - Davos - Seating - Bench | 6 |
| S9 | STEELCASE | Steelcase Health - Surround - 83W | 1 |
| S10 | BLU DOT | Blu Dot - Hecks - Ottoman | 8 |
| S11 | COALESSE | Steelcase Coalesse - Hosu - Seating - Lounge Chair - Two Seat | 2 |
| S12 | COALESSE | Steelcase Coalesse - Hosu - Seating - Lounge Chair | 1 |
| S13 | COALESSE | Steelcase Coalesse - Sebastopol - Table - Small | 11 |
| S14 | COALESSE | Steelcase Coalesse - Sebastopol - Table - Large | 8 |

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| T1 | STEELCASE | Steelcase - B-Free - Occasional Table - Coffee | 6 |
| T2 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Three Leg1 | 12 |
| T3 | ORANGEBOX | 1544704068CUBB-TABLES_Multi-Meeting -Tables_Range | 3 |
| T4 | COALESSE | Steelcase Coalesse - Free Stand | 5 |
| T5 | STEELCASE | VCBBU50 | 3 |
| T6 | STEELCASE | Steelcase - Groupwork - Table - Top - Round | 19 |
| T7 | TURNSTONE | Steelcase Turnstone - Campfire - Slim Table | 1 |
| T8 | ORANGEBOX | Viccarbe_TIERS-Composition-A | 5 |
| T9 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Three Leg | 6 |
| T10 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Three Leg | 6 |
| T11 | COALESSE | Steelcase Coalesse - Lagunitas - Table - Work1 | 10 |
| T12 | BLU DOT | Blu Dot - Hecks - Ottoman - Leather | 1 |
| T13 | TURNSTONE | Steelcase Turnstone - Campfire - Big Table | 2 |
| T14 | TURNSTONE | Steelcase Turnstone - Bassline - Table - Round1 | 4 |
| T15 | STEELCASE | Steelcase - Migration - Desk - Rectangular1 | 3 |
| T16 | TURNSTONE | Steelcase Turnstone - Campfire - Skate Table | 4 |
| T17 | COALESSE | Steelcase Coalesse - Montara650 - Table - Work Height - Round1 | 3 |

| FURNITURE SCHEDULE | | | |
|---|---|---|---|
| TAG | BRAND | DESCRIPTION | COUNT |
| T18 | STEELCASE | Viccarbe_UP-IN-THE-AIR | 4 |
| T19 | STEELCASE | Steelcase - Elective Elements - Height Adjustable Worksurface - 36D - Full Top | 1 |
| T20 | STEELCASE | Steelcase - Flex - Table - Slim | 2 |

Grand total: 528

N

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EST. 1918
R. Wayne Estopinal College of Architecture and Planning

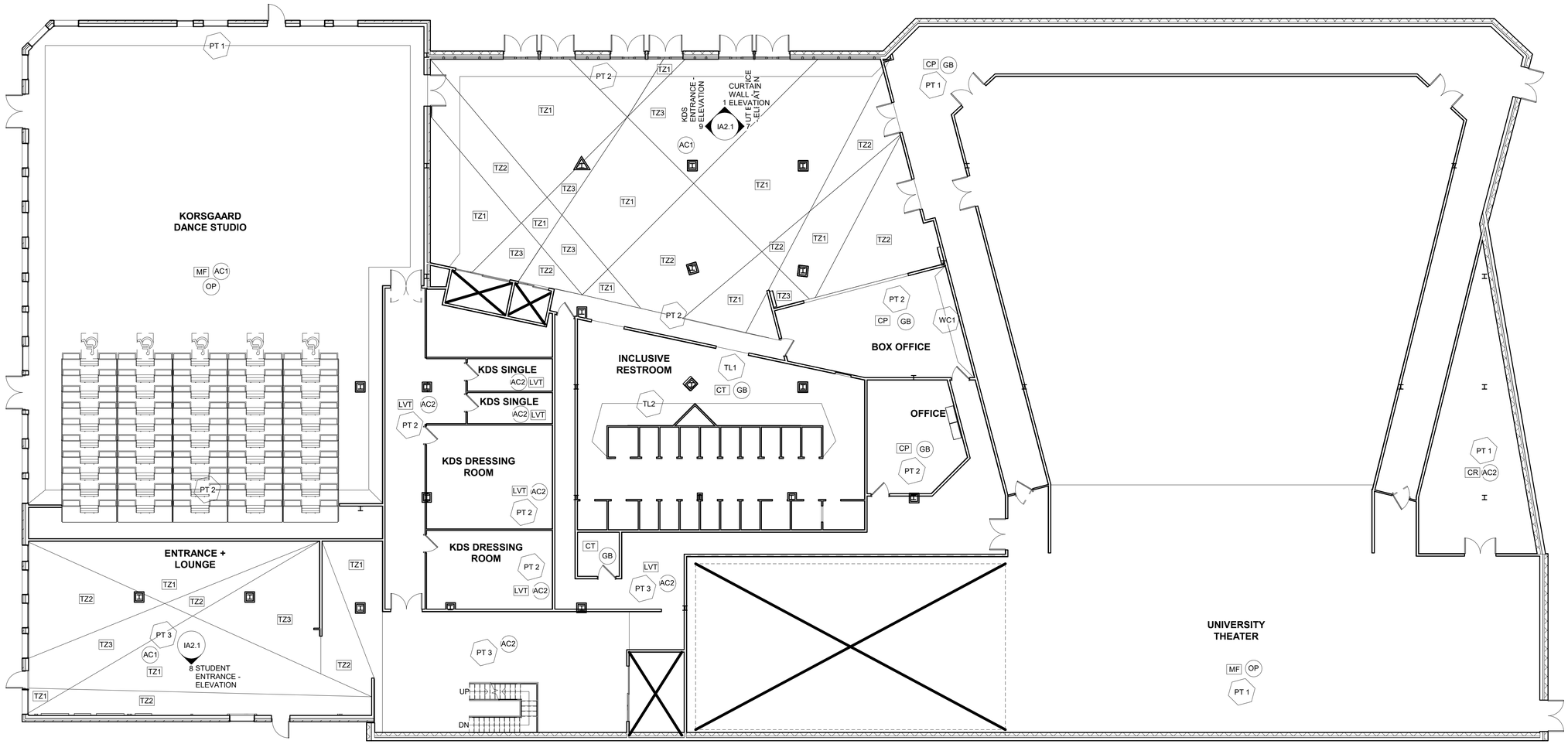
| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 03/25/20 | FIRST SUBMITTAL |
| 2 | 04/08/20 | SECOND SUBMITTAL |
| 3 | 04/24/20 | FINAL SUBMITTAL |

PROJECT:
# MAIN STREET PERFORMING ARTS CENTER
103 E MAIN ST.
MUNCIE, INDIANA 47304

SHEET TITLE:
## FURNITURE PLAN LEVEL 5

DRAWN BY:
SCHRIPSEMA, EMILY
DATE:
03/25/2020

SHEET NUMBER:
IA1.5




1 LEVEL 1 FINISH PLAN
1" = 10'-0"

## FLOOR FINSIHES

| | |
|---|---|
| MF | MARLEY FLOORING |
| TZ1 | TERRAZZO<br>CONCORD TERRAZZO CO.<br>COLOR: 46 |
| TZ2 | TERRAZZO<br>CONCORD TERRAZZO CO.<br>COLOR: 1649 |
| TZ3 | TERRAZZO<br>CONCORD TERRAZZO CO.<br>COLOR: 2087 |
| CT | CERMANIC TILE<br>DATILE, FABRIC ART<br>MODERN LINEAR WHITE |
| CR | POLISHED CONCRETE |
| CP | CARPET TILES<br>SHAW CONTRACT<br>IMPRESSION I, GREY |
| LVT | LUXARY VINYL TILE<br>SHAW CONTRACT<br>INSPIRE, ENCOURAGE |

## CEILING FINSIHES

| | |
|---|---|
| OP | OPEN CEILING |
| AC1 | ACOUSTIC TILE CEILING<br>3FORM, TETRIA<br>ZINC |
| AC2 | ACOUSTIC TILE CEILING, 2 X 2 |
| GB | GYPSUM DRYWALL CEILING<br>SHERWIN WILLIAMS<br>CEILING BRIGHT WHITE 7007 |

## WALL FINSIHES

| | |
|---|---|
| PT1 | SHERWIN WILLIAMS<br>SEA SERPENT 7615 |
| PT2 | SHERWIN WILLIAMS<br>EXTRA WHITE 7006 |
| TL1 | PROCELAIN TILE<br>RENZO GRAFITE MATTE |
| TL2 | MARBLE TILE<br>PRISM ROSA MARBLE<br>MOSAIC TILE |
| WC2 | ARCHITECTURAL SYSTEMS<br>SCULPTURED COLLECTION<br>PRIMED MDF WPMAS012 |
| WC1 | MDC WALLCOVERINGS<br>WOOD VENEER, RIFT ASH<br>NFW1004 |
| TL3 | PORCELAIN TILE<br>DEXTER WHITE<br>MATTE FINISH |

| | |
|---|---|
| RS1 | 3FORM RESIN PANEL<br>CHROMA, REEF |
| RS2 | 3FORM RESIN PANEL<br>CHROMA, HELIUM |
| RS3 | 3FORM RESIN PANEL<br>CHROMA, MERLOT |
| RS4 | 3FORM RESIN PANEL<br>CHROMA, JEWEL |
| RS5 | 3FORM RESIN PANEL<br>CHROMA, COSMO |
| RS6 | 3FORM RESIN PANEL<br>CHROMA, SHERBET |
| RS7 | 3FORM RESIN PANEL<br>CHROMA, DAISY |

## FINISH NOTES

1. NO FINISH SUBSTITUTIONS SHALL BE MADE UNLESS APPROVED BY ARCHITECT.
2. APPLICATION OF CONTROLLED INTERIOR FINISHES SHALL BE IN CONFORMANCE WITH STATE & LOCAL CODES.
3. DECORATIVE MATERIALS SHALL BE MAINTAINED IN FLAME-RETARDANT CONDITIONS.
4. SUBMIT THE FOLLOWING SAMPLES FOR ARCHITECTS APPROVAL:
   a. THREE (3) 12"X12" SAMPLES FOR ALL PAINT, VINYL, AND FABRIC FINISHES AND COLORS APPLIED TO A SUBSTRATE WHICH IS REPRESENTATIVE OF THE SURFACE TO BE FINISHED. SUBMIT PAINT SAMPLES FROM THE PAINT LOT OR LOTS FOR APPLICATION.
   b. ONE (1) 24"X24" MOCK UP WITH SAMPLE SEAM (CENTERED) OF ALL FABRIC, VINYL FINISHES AND COLOR
   b. THREE (3) 12"X12" SAMPLES OF ALL FLOOR COVERINGS.
   c. SUBMIT ACTUAL CUTTING OF EACH PRODUCT FOR COLOR/QUALITY CONTROL.
5. WHERE MATERIALS ARE NOT RETURNABLE, SUBMIT SAMPLES TO ARCHITECT BEFORE PLACING FULL ORDERS.
6. SUBMIT SEAMING PLAN FOR CARPET TO ARCHITECT FOR APPROVAL PRIOR TO CARPET ORDER.
7. NOTIFY ARCHITECT IMMEDIATELY OF ITEMS WITH LONG LEAD TIMES.
8. ALL PAINT FINISH OF METAL PARTS OF DOORS, HAND RAILS, PERIMETER ENCLOSURES, ETC. SHALL BE SEMI-GLOSS UNLESS OTHERWISE NOTED.
9. WHERE PAINT COLORS CHANGE, CORNERS ARE TO BE CUT-IN, FREE OF OVERLAPPING.
10. PRIOR TO THE INSTALLATION OF WALL COVERINGS, SURFACES SHALL BE PROPERLY PREPARED WITH SEALER PER MANUFACTURES RECOMMENDATIONS.
11. CONTRACTOR TO VERIFY CONDITION AND LEVEL OF FLOOR SO AS TO RECEIVE NEW FINISHES WITHOUT BOWING AT FLOOR OR WALL BASE. CONTRACTOR IS RESPONSIBLE FOR ALL FLOOR PREPARATION.
12. ALL CARPETING SHALL BE INSTALLED WITH GLUE DOWN METHOD, UNLESS NOTED OTHERWISE.
13. WHERE FLOOR MOUNTED OUTLETS ARE REQUIRED ON CARPETED AREA, CUT CARPET IN "X" OVER FLOOR HOLE AND INSTALL CARPET OVER TOP. DO NOT TRIM CARPET.
14. ALL V.C.T. TO BE INSTALLED WITH FULL TILE FROM VINYL THRESHOLD STRIP AND FULL TILES FROM WALL TO ADJACENT DOOR SWING U.N.O.
15. PROVIDE AND INSTALL SPECIFIED BASE FOR ALL AREAS TO RECEIVE FLOORING.
16. CONTRACTOR SHALL PROVIDE PRE FORMED RUBBER BASE CORNERS. DO NOT CUT OR BEND STRAIGHT BASE TO MAKE CORNERS.
17. MILLWORK LOWER CABINETS ARE NOT TO RECEIVE WALL BASE UNLESS INDICATED IN FINISH PLANS.
18. FLOOR FINISHES TO CONTINUE UNDERNEATH "OPEN FLOOR" AREAS OF MILLWORK, INCLUDING SINK AREA AND ALL UNDER COUNTER EQUIPMENT AREAS WHICH ARE OPEN TO THE FLOOR.

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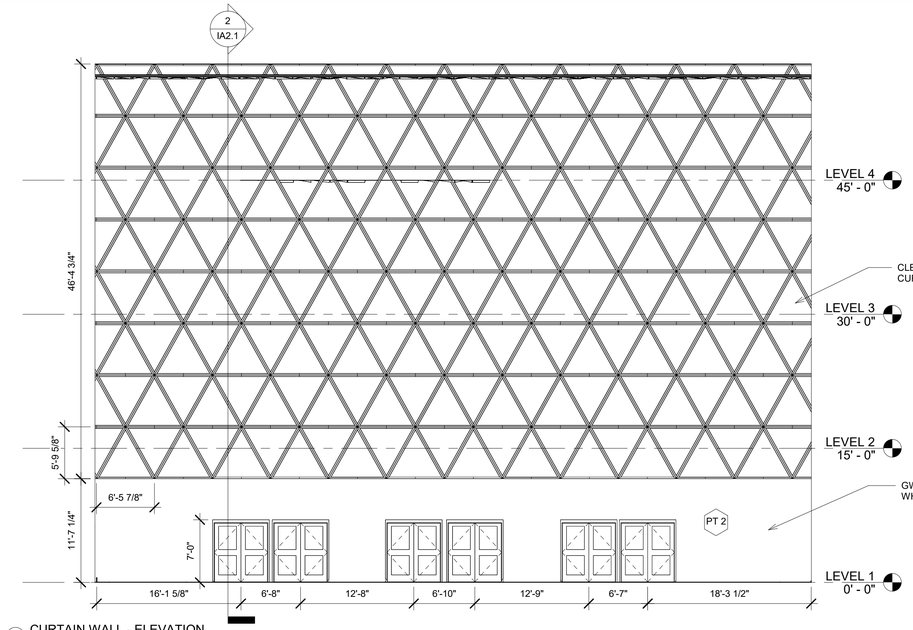
| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 03/25/20 | FIRST SUBMITTAL |
| 2 | 04/06/20 | SECOND SUBMITTAL |
| 3 | 04/24/20 | FINAL SUBMITTAL |

PROJECT:
MAIN STREET PERFORMING ARTS CENTER
103 E MAIN ST.
MUNCIE, INDIANA 47304

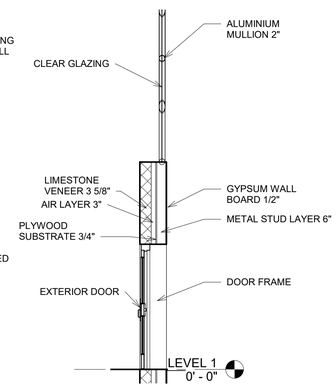
SHEET TITLE:
PARTITION PLAN LEVEL 5

DRAWN BY: SCHRIPSEMA, EMILY
DATE: 03/25/2020

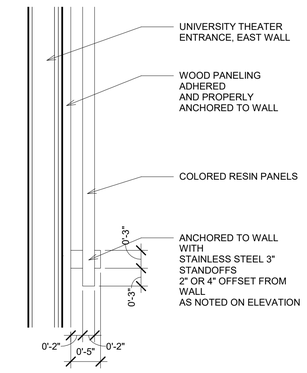
SHEET NUMBER:
IA1.1A



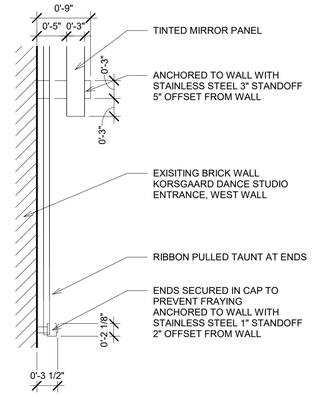

1 CURTAIN WALL - ELEVATION
1/8" = 1'-0"



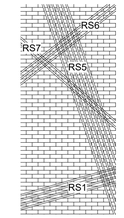

2 CURTAIN WALL - SECTION
1/4" = 1'-0"



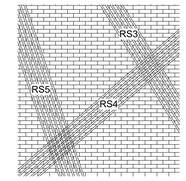

3 UT PANEL DETAIL - SECTION
1" = 1'-0"



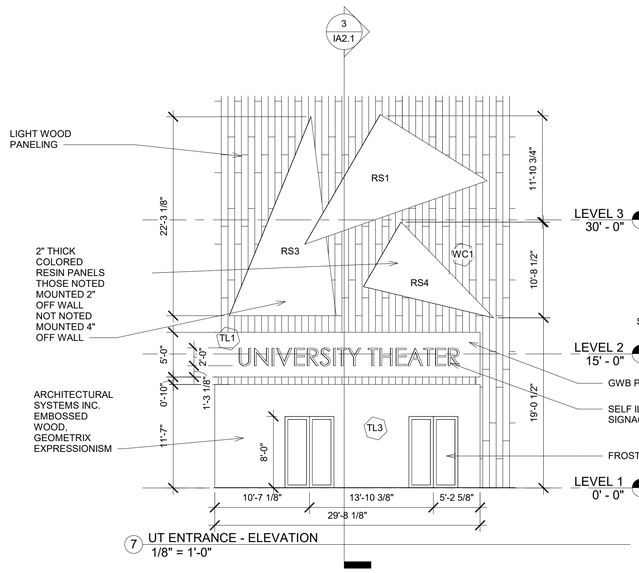

4 RIBBON DETAIL - SECTION
1" = 1'-0"



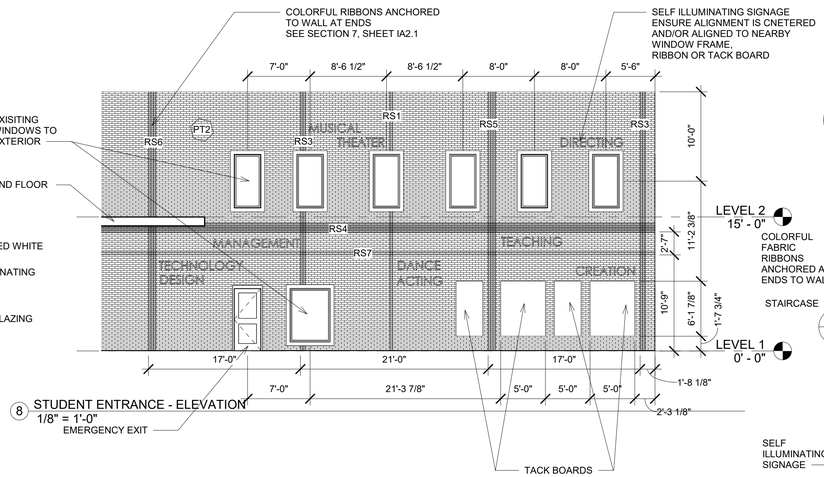

5 RIBBON DETAIL - CALLOUT (B)
1/4" = 1'-0"



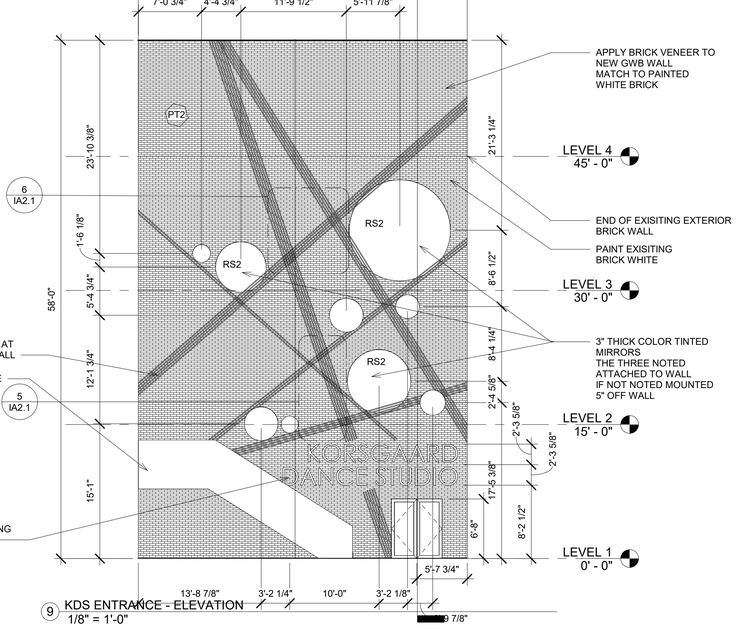

6 RIBBON DETAIL - CALLOUT (A)
1/4" = 1'-0"



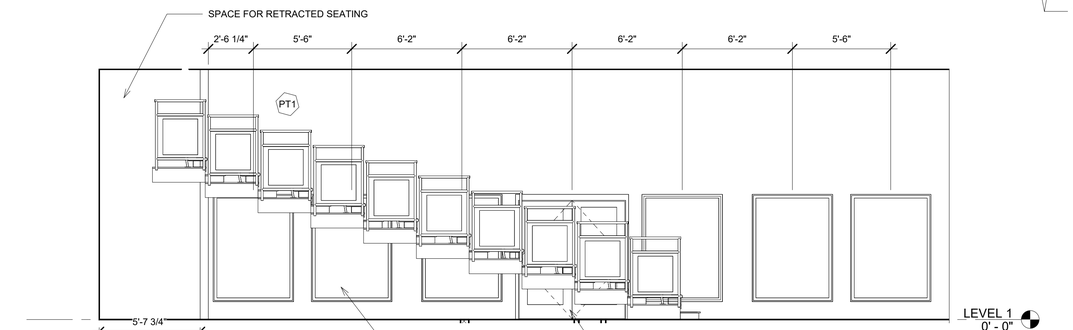

7 UT ENTRANCE - ELEVATION
1/8" = 1'-0"



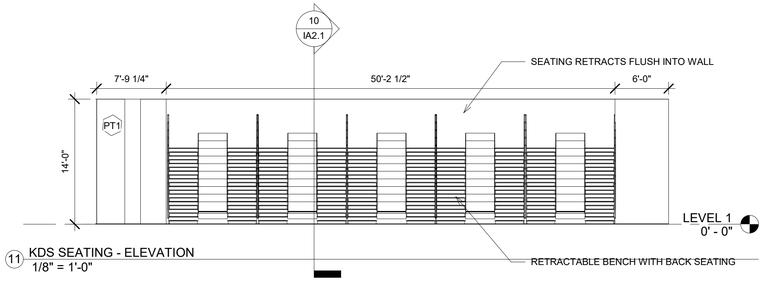

8 STUDENT ENTRANCE - ELEVATION
1/8" = 1'-0"




9 KDS ENTRANCE - ELEVATION
1/8" = 1'-0"




10 KDS SEATING - SECTION
1/4" = 1'-0"




11 KDS SEATING - ELEVATION
1/8" = 1'-0"

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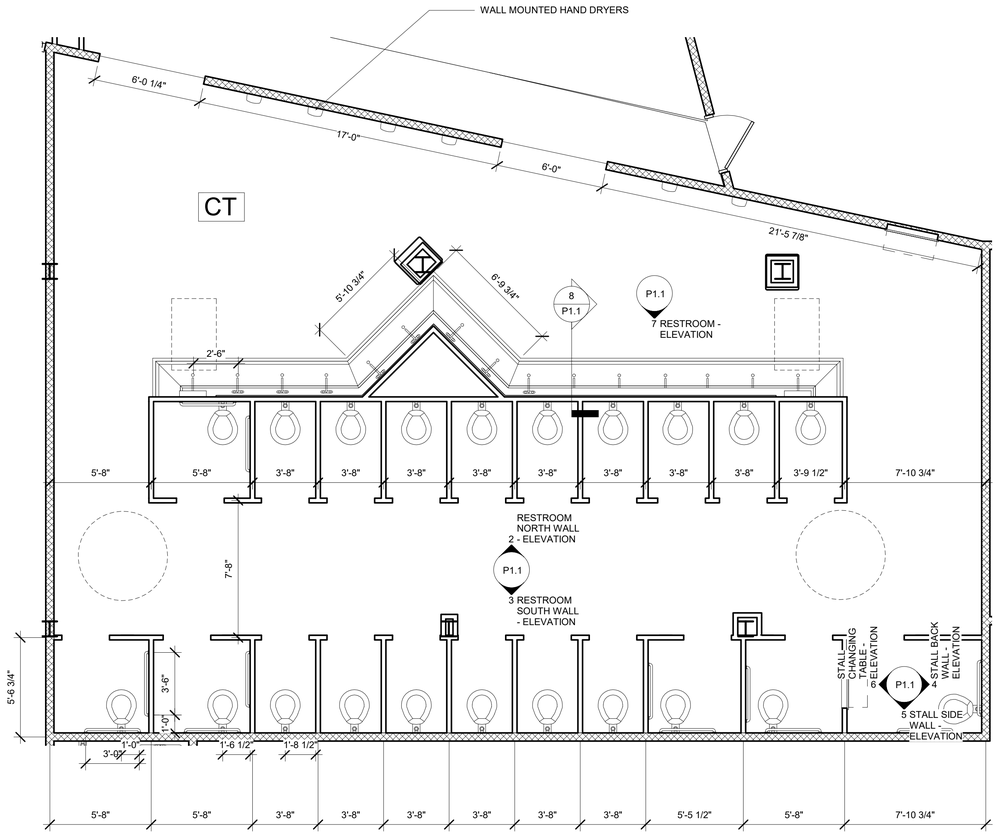
| 3 | 04/24/20 | FINAL SUBMITTAL |

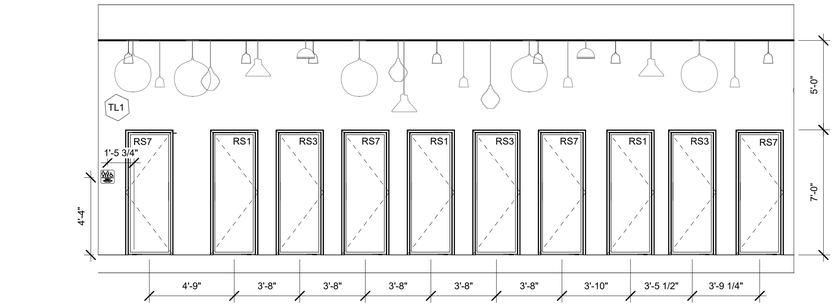
PROJECT:
# MAIN STREET PERFORMING ARTS CENTER
103 E MAIN ST.
MUNCIE, INDIANA 47304

SHEET TITLE:
## INTERIOR ELEVATIONS

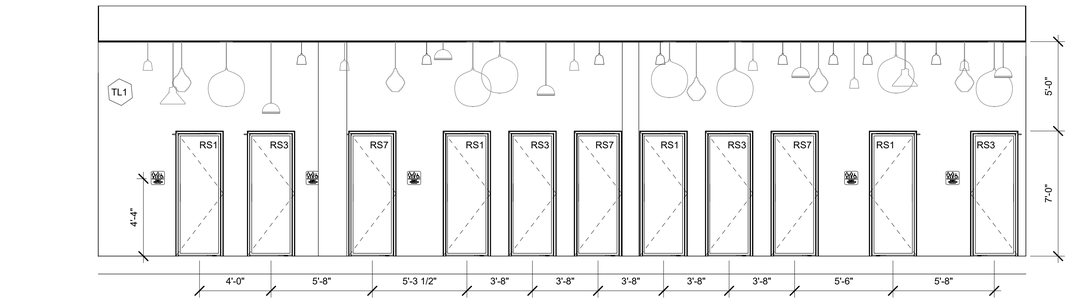
DRAWN BY:
SCHRIPSEMA, EMILY
DATE:
03/25/2020
SHEET NUMBER:
# IA2.1



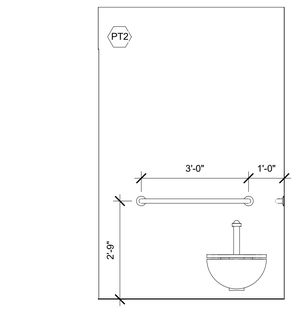

1 LEVEL 1 PUBLIC RESTROOM
1/4" = 1'-0"



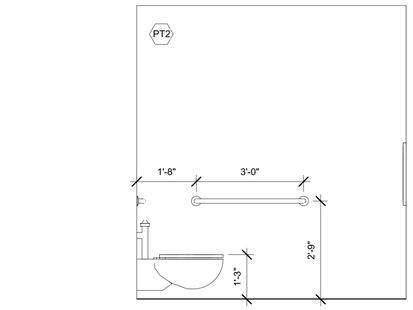

2 RESTROOM NORTH WALL - ELEVATION
1/4" = 1'-0"



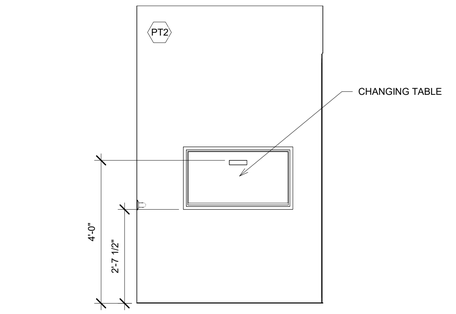

3 RESTROOM SOUTH WALL - ELEVATION
1/4" = 1'-0"



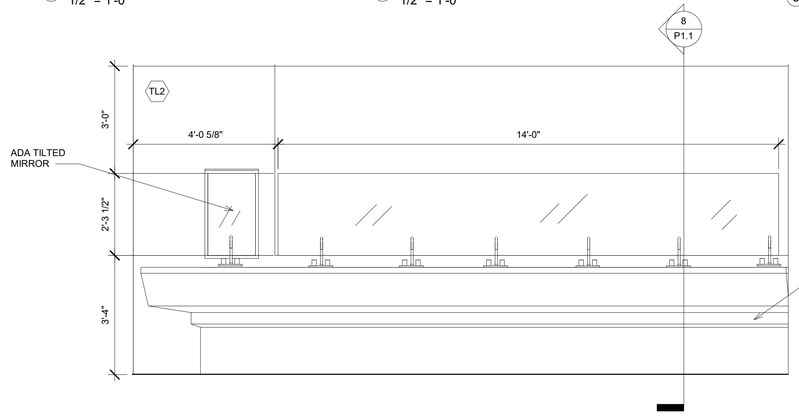

4 STALL BACK WALL - ELEVATION
1/2" = 1'-0"



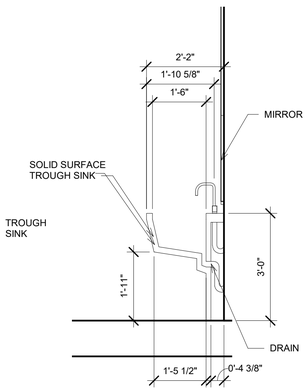

5 STALL SIDE WALL - ELEVATION
1/2" = 1'-0"




6 STALL CHANGING TABLE - ELEVATION
1/2" = 1'-0"




7 RESTROOM - ELEVATION
1/2" = 1'-0"




8 VANITY - SECTION
1/2" = 1'-0"

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| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 03/25/20 | FIRST SUBMITTAL |
| 2 | 04/09/20 | SECOND SUBMITTAL |
| 3 | 04/24/20 | FINAL SUBMITTAL |

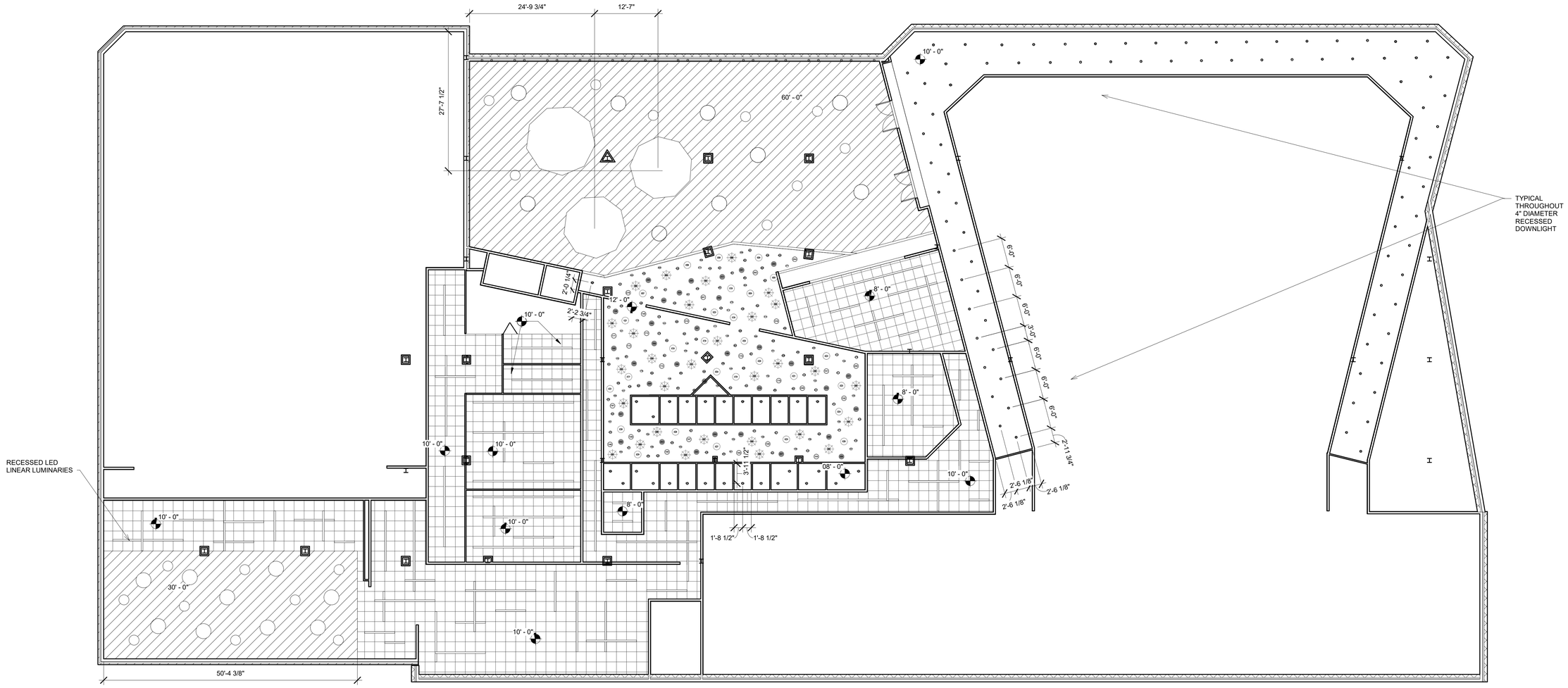
PROJECT
# MAIN STREET PERFORMING ARTS CENTER
103 E MAIN ST.
MUNCIE, INDIANA 47304

SHEET TITLE
## ENLARGED PLUMBING PLAN AND DETAILS

DRAWN BY:

DATE
03/25/2020

SHEET NUMBER
P1.1




1 LEVEL 1 REFLECTED CEILING PLAN
1" = 10'-0"

| TAG | CABLE LENGTH |
|---|---|
| 135 | 1' - 0" |
| 136 | 1' - 6" |
| 137 | 2' - 6" |
| 138 | 1' - 0" |
| 140 | 3' - 0" |
| 141 | 1' - 0" |
| 142 | 1' - 6" |
| 143 | 1' - 0" |
| 144 | 1' - 6" |
| 145 | 2' - 0" |
| 146 | 1' - 0" |
| 147 | 2' - 0" |
| 148 | 1' - 0" |
| 149 | 2' - 0" |
| 150 | 2' - 0" |
| 151 | 2' - 0" |
| 152 | 1' - 0" |
| 153 | 1' - 0" |
| 154 | 2' - 0" |
| 155 | 1' - 0" |
| 156 | 2' - 0" |
| 157 | 1' - 0" |
| 158 | 2' - 0" |
| 159 | 1' - 0" |
| 160 | 2' - 0" |
| 161 | 1' - 0" |
| 162 | 2' - 0" |
| 163 | 1' - 0" |
| 164 | 2' - 0" |

| TAG | CABLE LENGTH |
|---|---|
| 165 | 1' - 0" |
| 166 | 2' - 0" |
| 167 | 1' - 0" |
| 168 | 2' - 0" |
| 169 | 1' - 0" |
| 170 | 2' - 0" |
| 171 | 4' - 0" |
| 172 | 1' - 0" |
| 173 | 3' - 0" |
| 174 | 3' - 0" |
| 178 | 1' - 0" |
| 179 | 2' - 0" |
| 181 | 3' - 0" |
| 182 | 2' - 0" |
| 184 | 1' - 0" |
| 185 | 3' - 0" |
| 186 | 4' - 0" |
| 187 | 3' - 0" |
| 188 | 1' - 0" |
| 189 | 4' - 0" |
| 190 | 1' - 0" |
| 191 | 3' - 0" |
| 192 | 1' - 0" |
| 193 | 2' - 0" |
| 194 | 4' - 0" |
| 195 | 2' - 0" |
| 196 | 3' - 0" |
| 197 | 1' - 0" |
| 198 | 1' - 6" |

| TAG | CABLE LENGTH |
|---|---|
| 199 | 1' - 0" |
| 200 | 2' - 0" |
| 201 | 2' - 6" |
| 202 | 1' - 6" |
| 203 | 1' - 6" |
| 204 | 2' - 0" |
| 205 | 2' - 6" |
| 206 | 1' - 0" |
| 207 | 1' - 6" |
| 208 | 2' - 0" |
| 209 | 1' - 6" |
| 210 | 2' - 6" |
| 211 | 1' - 0" |
| 212 | 2' - 6" |
| 213 | 1' - 6" |
| 214 | 2' - 6" |
| 215 | 2' - 0" |
| 216 | 3' - 0" |
| 217 | 2' - 6" |
| 218 | 2' - 0" |
| 219 | 1' - 0" |
| 220 | 1' - 6" |
| 221 | 3' - 0" |
| 222 | 3' - 0" |
| 223 | 2' - 0" |
| 224 | 1' - 6" |
| 225 | 1' - 0" |
| 226 | 2' - 6" |
| 227 | 3' - 0" |

| TAG | CABLE LENGTH |
|---|---|
| 228 | 1' - 0" |
| 229 | 1' - 6" |
| 230 | 2' - 0" |
| 231 | 2' - 6" |
| 232 | 1' - 6" |
| 233 | 0' - 9" |
| 234 | 1' - 0" |
| 235 | 0' - 9" |
| 236 | 1' - 6" |
| 237 | 1' - 0" |
| 238 | 1' - 6" |
| 239 | 1' - 0" |
| 240 | 0' - 9" |
| 241 | 0' - 9" |
| 242 | 1' - 0" |
| 243 | 1' - 6" |
| 244 | 0' - 9" |
| 245 | 1' - 6" |
| 246 | 0' - 9" |
| 247 | 1' - 0" |
| 248 | 1' - 6" |
| 249 | 1' - 0" |
| 250 | 0' - 9" |
| 251 | 1' - 6" |
| 252 | 1' - 0" |
| 253 | 3' - 0" |
| 254 | 2' - 0" |
| 255 | 2' - 0" |
| 256 | 1' - 0" |

| TAG | CABLE LENGTH |
|---|---|
| 263 | 1' - 0" |
| 265 | 1' - 0" |
| 266 | 1' - 0" |
| 267 | 2' - 0" |
| 268 | 2' - 0" |
| 269 | 1' - 0" |
| 270 | 3' - 6" |
| 271 | 3' - 0" |
| 273 | 3' - 0" |
| 274 | 1' - 0" |
| 279 | 1' - 9" |
| 281 | 3' - 11" |
| 282 | 2' - 10" |
| 284 | 4' - 0" |
| 288 | 1' - 6" |
| 289 | 2' - 6" |
| 291 | 2' - 0" |
| 292 | 1' - 6" |
| 293 | 2' - 6" |
| 295 | 2' - 9" |
| 296 | 2' - 0" |
| 297 | 3' - 0" |
| 298 | 2' - 8" |
| 299 | 1' - 0" |
| 300 | 2' - 0" |
| 303 | 1' - 6" |
| 304 | 1' - 0" |
| 305 | 0' - 7" |
| 306 | 1' - 0" |

| TAG | CABLE LENGTH |
|---|---|
| 307 | 1' - 6" |
| 309 | 2' - 0" |
| 310 | 3' - 0" |
| 311 | 2' - 0" |
| 312 | 1' - 6" |
| 313 | 2' - 0" |
| 314 | 1' - 0" |
| 315 | 1' - 0" |
| 316 | 2' - 8" |
| 319 | 1' - 0" |
| 320 | 0' - 7" |
| 321 | 0' - 7" |
| 322 | 0' - 7" |
| 323 | 0' - 8" |
| 325 | 1' - 6" |
| 398 | 0' - 8" |
| 409 | 0' - 8" |

## LUMINAIRE & CEILING TYPE LEGEND

- ZERO PXL PENDANT
- ZERO HOOP PENDANT
- ZERO DAIKANYAMA PENDANT
- ZERO CONVEX PENDANT SMALL
- FOCUS LIGHTING H+M PENDANT
- LINEAR PENDANT 2' DIAMETER
- RECESSED DOWNLIGHT 4" DIAMETER
- RECESSED LINEAR 4" WIDTH
- LARGE CUSTOM PENDANT
- LINEAR PENDANT 3' DIAMETER
- 2 X 2 ACOUSTIC CEILING TILE WHITE
- 2 X 2 3FORM TETRIA CEILING TILE WHITE

## CEILING NOTES

1. SET ELECTRICAL ENGINEERING DRAWINGS FOR SPECIFICATIONS OF NEW BUILDING STANDARD LIGHT FIXTURES.
2. ALL REPLACEMENT FLUORESCENT LAMPS TO MATCH BUILDING STANDARD SAME COLOR AND MANUFACTURER.
3. FIELD VERIFY EXISTING CEILING GRID LOCATIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES ON PLANS.
4. WHERE DISCREPANCIES IN LOCATION OF LIGHT FIXTURES, AIR DIFFUSERS, GRILLES, ETC. OCCUR ON THE ELECTRICAL ENGINEERING PLANS. THE ARCHITECTURAL PLANS SHALL GOVERN. NOTIFY ARCHITECT OF ANY DISCREPANCIES OR CLASSIFICATIONS.
5. FIELD VERIFY ALL CLEARANCES OF DUCTS, PIPES, SPRINKLERS, ETC. AND NOTIFY ARCHITECT OF ANY CONFLICTS PRIOR TO INSTALLATION OF LIGHTS.
6. PLACEMENT OF LIGHT FIXTURES IN AREAS WHERE MAIN DUCTS MAY CAUSE INTERFERENCE MUST BE APPROVED BY ARCHITECT PRIOR TO INSTALLATION.
7. CONDUIT ABOVE CEILING MUST BE A MINIMUM OF 12" ABOVE CEILING GRID.
8. NO COMBUSTIBLE MATERIALS SHALL BE USED IN THE PLENUM INCLUDING ALUMINUM FLEX, ALUMINUM CONDUIT, AND POT METAL CONNECTORS.
9. ALL JUNCTION BOXES AND MECHANICAL EQUIPMENT REQUIRING ACCESS FOR SERVICE SHALL BE LOCATED OVER ACOUSTICAL CEILINGS. NO ACCESS HATCHES SHALL BE INSTALLED N GYPSUM BOARD CEILINGS WITHOUT PRIOR APPROVAL BY ARCHITECT (NO EXCEPTIONS)
10. ALL SPRINKLER HEADS AT HARD-LID CEILINGS RE TO BE FULLY RECESSED AND CONCEALED. HEADS ARE TO BE CENTERED BETWEEN LIGHTS IN A UNIFORM ARCHITECTURAL PATTERN. G.C. TO PROVIDE A SUBMITTAL WITH SPRINKLER HEAD LOCATIONS FOR ARCHITECT APPROVAL PRIOR TO INSTALLATION.
11. ALL HARD-LID CEILINGS ARE TO BE INSTALLED WITH LINEAR DIFFUSERS. G.C. TO PROVIDE A SUBMITTAL WITH ALL LINEAR DIFFUSER LOCATIONS PRIOR TO INSTALLATION.
12. LOCATED RECESSED DOWN LIGHTS, WALL WASHERS, SMOKE DETECTORS, EXIT SIGNS, SPEAKERS, FIRE SPRINKLERS ETC. IN CENTER OF 24"X24" CEILING TILES OR IN CENTER OF 24"X24" PORTION OF 24"X24" CEILING TILES.
13. PROVIDE SWITCHES AND LIGHT SENSORS FOR OPEN AREAS AND PRIVATE OFFICES. ACTUAL LOCATION OF ALL SWITCHES TO BE DETERMINED BY ELECTRICAL ENGINEER.
14. WHERE EXIT SIGNS ARE REQUIRED PER STATE AND LOCAL CODES, THEY SHALL BE ILLUMINATED PER SAID CODES AND THE NEC. LOCATIONS SHALL BE COORDINATED BY THE ARCHITECT.
15. PROVIDE BACK-UP POWER FOR EXIT SIGNS PER STATE & LOCAL CODES.
16. THE MEANS OF EGRESS TRAVELED SHALL BE ILLUMINATED AT ANY TIME THE BUILDING IS OCCUPIED WITH A LIGHT INTENSITY OF NOT LESS THAN ONE FOOT-CANDLE AT THE FLOOR LEVEL.
17. EMERGENCY LIGHTING SHALL BE (2) SEPARATE SOURCES OF POWER AND SHALL BE COMPLY WITH THE NEC.

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BALL STATE UNIVERSITY
EST. 1918
R. Wayne Estopinal College of Architecture and Planning

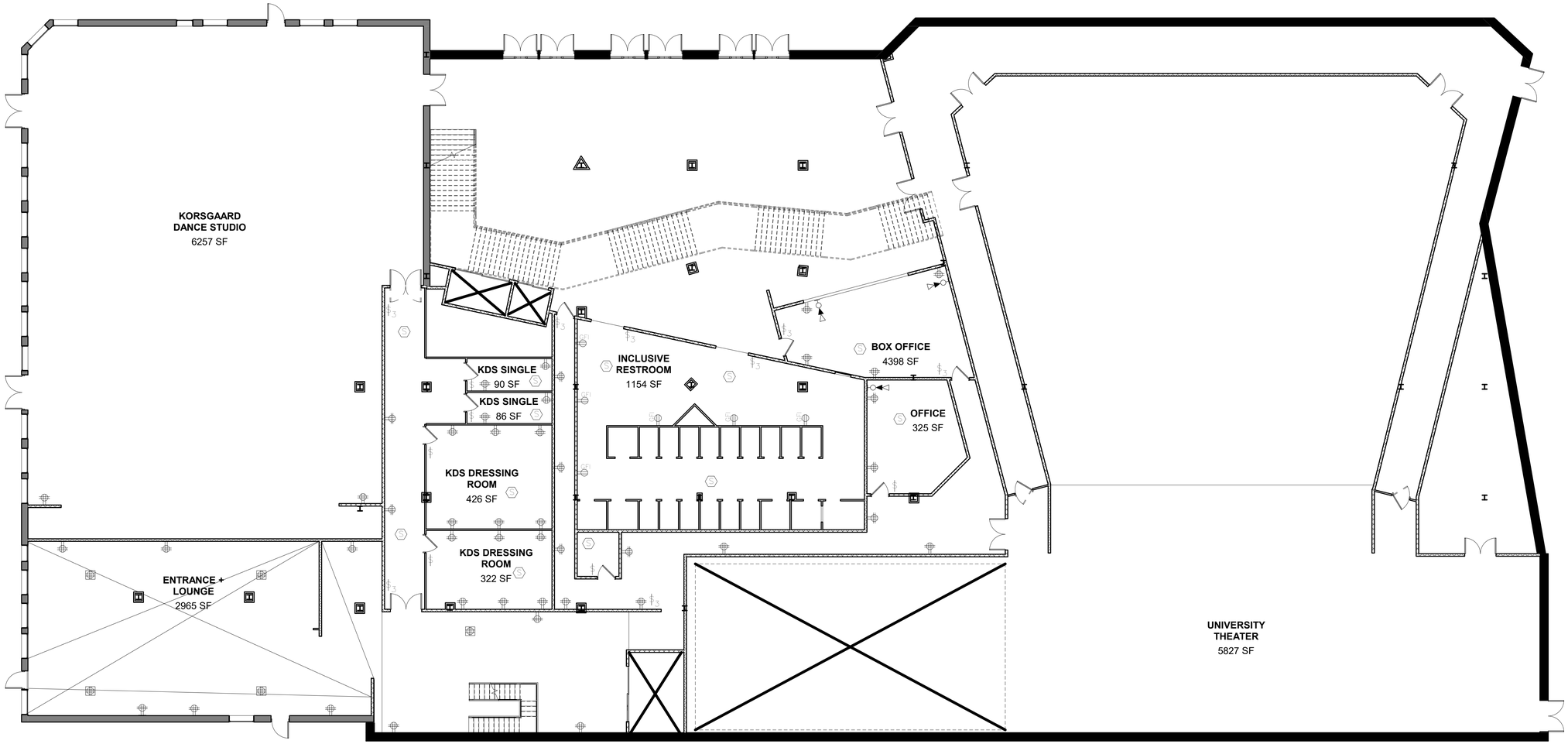
| NO. | DATE | DESCRIPTION |
|---|---|---|
| 1 | 03/25/20 | FIRST SUBMITTAL |
| 2 | 04/06/20 | SECOND SUBMITTAL |
| 3 | 04/24/20 | FINAL SUBMITTAL |

PROJECT
MAIN STREET PERFORMING ARTS CENTER
103 E MAIN ST.
MUNCIE, INDIANA 47304

SHEET TITLE
REFLECTED CEILING PLAN LEVEL 1

Drawn By:
SCHRIPSEMA, EMILY
DATE
03/25/2020

SHEET NUMBER
EL1.1




1 LEVEL 1 ELECTRICAL POWER PLAN
1" = 10'-0"

## LOCAL SWITCHES & RECEPTACLES

- LIGHT SWITCH
- LIGHT SWITCH, 3 WAY POLE
- CEILING MOUNTED AUTOMATIC LIGHTING CONTROL/OCCUPANCY SENSOR
- DOUBLE DUPLEX RECEPTACLE
- FLOOR DOUBLE DUPLEX RECEPTACLE
- GFCI GROUND FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLE
- DATA / VOICE / SINGLE POWER COMBINATION

## POWER & SIGNAL NOTES

1. COORONATE TELEPHONE/DATA INSTALLATION WITH APPRORIATE SUB-CONTRACTOR.
2. ALL EXISTING ELECTRICAL DEVICES ARE TO REMAIN, UNLESS NOTED OTHERWISE.
3. ALL OUTLETS TO BE INSTALLED AT LOCATIONS SHOWN BY DIMENTSIONS ON THE POWER AND SIGNAL PLAN. DIMENSION ALL OUTLETS FROM THE CENTERLINE OF THE OUTLIT BOX. NON-DIMENSION OUTLETS ARE TO LOCATED AT THE NEAREST WALL STUD.
4. WHEN OUTLETS ARE GROUPED TOGETHER (2OR MORE). THEY ARE TO BE SPACED NO MORE THAN 2" APART.
5. ALL NEW WALL MOUNTED 15, 20, AND 30 AMP RECEPTACLES OUTLETS TO BE CENTERED AT 18" A.F.F., U.N.G.
6. ALL TELEPHONE AND DATA CABLE TO BE TEFLON COATED PLENUM RATED CABLE, SUPPORTED INDEPENDENTLY FROM SUSPENDED CEILING SYSTEM. CABLING TO BE SUPPLIED BY G.G; ALL PULLS AND TERMINATIONS BY G.C.
7. LOCATIONS OF FURNITURE POWER FEEDS SHALL ACCOMMODATE WIRE PER ELECTRICAL DRAWINGS. TENANT SHELL BE RESPONSIBLE FOR PROVIDING FURNITURE POWER FEED, GENERAL CONTRACTOR SHALL INSTALL THE POWER FEED.
8. WHERE DEDICATED ELECTRICAL OUTLETS ARE NOTED WITHIN THE FURNITURE PANEL SYSTEM, THE PANEL SYSTEM SHELL ACCOMMODATE THIS REQUIREMENT.
9. FLOOR OUTLETS ARE ACCEPTABLE NEXT TO SLICING PANELS/WALLS AND OTHER SPECIAL CONVENIENT LOCATIONS.
10. WHERE ELECTRICAL WORK IS SPECIFIED IN CONJUNCTION WITH CABINET WORK, LAMPS AND FIXTURES ARE TO BE PROVIDED BY THE GENERAL CONTRACTOR.
11. OUT-OUTS FOR SWITCHES, OUTLETS ETC. AS REQUIRED BY THE CABINET CONTRACTOR ARE TO BE COORDINATED WITH THE ELECTRICAL CONTRACTOR, U.N.O. ALL RECEPTACLES WHERE MILLWORK OCCURS SHALL BE LOCATED PER ELEVATIONS OF THE MILLWORK ITEM IN QUESTIONS.
12. ALL WALL COVER PLATES SHALL BE WHITE UNLESS BUILDING STANDARD IS DIFFERENT, MATCH BUILDING STANDARD. OUT-OUTS FOR SWITCHES OUTLETS, ETC, AS REQUIRED BY THE CABINET CONTRACTOR ARE TO BE COORDINATED WITH THE ELECTRICAL CONTRACTOR U.N.O. ALL RECEPTACLES WHERE MILLWORK OCCURS SHALL BE LOCATED PER ELEVATIONS OF THE MILLWORK ITEM IN QUESTION.
13. ALL SEPARATE CIRCUIT RECEPTACLES TO BE ORANGE COLOR WITH BUILDING STANDARD COLOR COVER PLATE.

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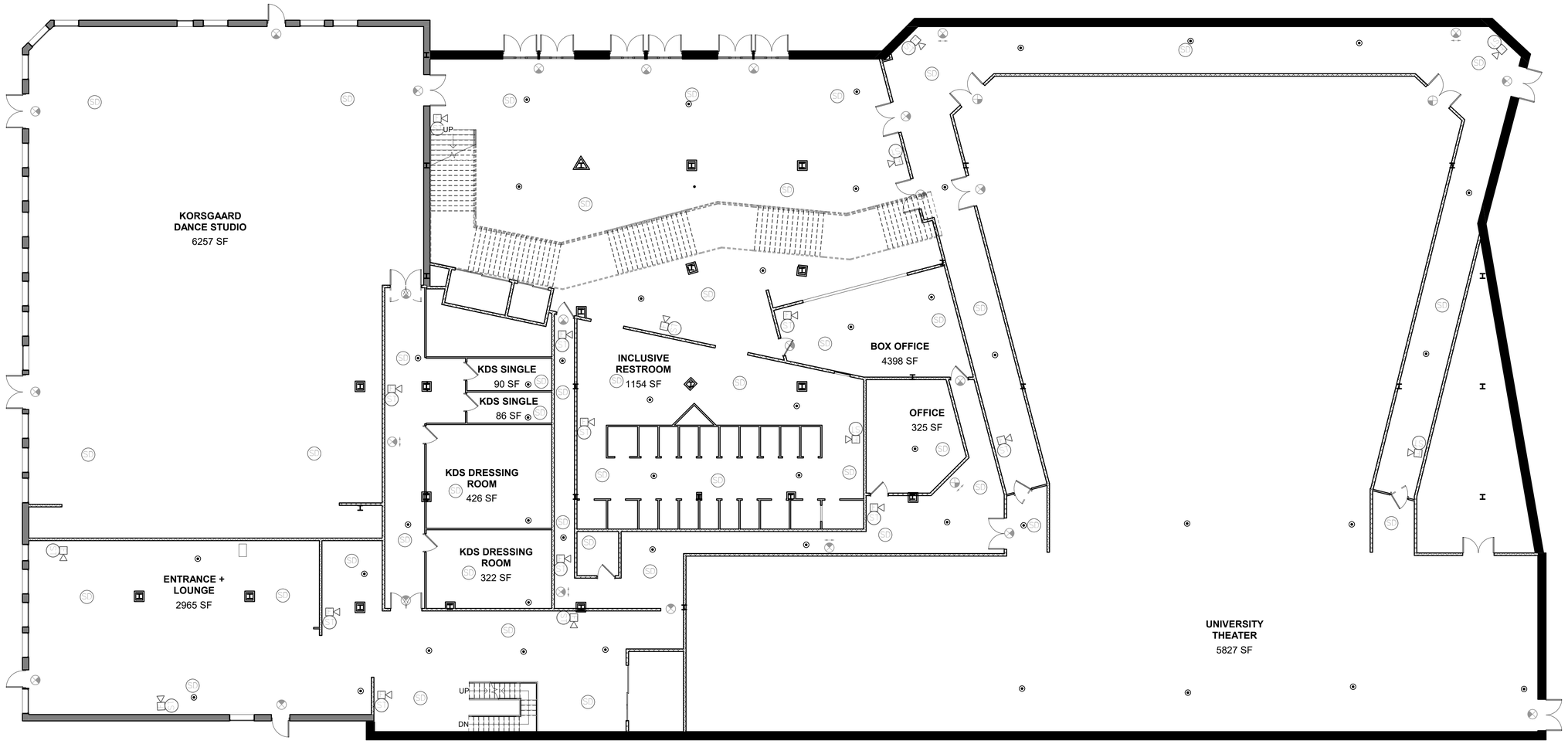
PROJECT:
MAIN STREET PERFORMING ARTS CENTER
103 E MAIN ST.
MUNCIE, INDIANA 47304

SHEET TITLE:
ELECTRICAL POWER PLAN LEVEL 1

DRAWN BY:
SCHRIPSEMA, EMILY

DATE:
03/25/2020

SHEET NUMBER:
EP1.1




1 LEVEL 1 FIRE PROTECTION PLAN
1" = 10'-0"

## SYMBOL LEGEND

- EXIT SIGN – SINGLE FACE – NO ARROW
- EXIT SIGN – SINGLE FACE – DOUBLE ARROW
- SMOKE DETECTOR PHOTOELECTRIC
- AUDIO/VISUAL COMBO
- FEC-R FIRE EXTINGUISHER CABINET–RECESSED
- CHROME RECESS PENDENT SPRINKLER

## FIRE AUTHORITY NOTES

1. FIRE DEPARTMENT FINAL INSPECTION REQUIRED SCHEDULED INSPECTORS 2 DAYS IN ADVANCE.
2. LOCATIONS AND CLASSIFICATIONS OF FIRE EXTINGUISHERS SHALL BE IN ACCORDANCE WITH THE UNIFORM FIRE CODE STANDARD 10-1 AND PLACEMENT IS SUBJECT TO THE APPROVAL OF THE FIRE INSPECTOR. VERIFY QUANTITY AND EXACT LOCATION FROM FIRE DEPARTMENT PRIOR TO ORDERING.
3. AT LEAST ONE FIRE EXTINGUISHER WITH A NIMINUM RATING OF 2-A OR C SHALL BE PROVIDED WITH 75 FEET MAXIMUM TRAVEL DISTANCE FOR EACH 5,000 SQUARE FEET OR PORTION THEREOF EACH FLOOR . CFC SECTION 1002 REGS. TITLE IS SECTION 3.20.
4. A SODIUM BICARBONATE OR POTASSIUM BICARBONATE DRY CHEMICAL TYPE PROTABLE FIRE EXTINGUISHER HAVING A MINIMUM RATING OF 40-8 SHALL BE INSTALLED WHIN 30FEET OF COMMERCIAL FOOD HEAT-PROCESSING EQUIPMENT, WHERE APPLICABLE SECTION 1008.2.7.
5. FIRE SPRINKLERS SYSTEMS PER UBC STD. 36-1 AND NFPA STD. 13 SHALL BE PROVIDED TO PROTECT ENTIRE BUILDING INCLUDING PROJECTIONS OVER 4 FEET AND SPRAY BOOTH. (ONLY IF REQUIRED BY CODE)
6. FIRE SPRINKLERS SYSTEMS AND ALL CONTROL VALVES INCLUDEING EXTERIOR SHALL BE SUPERVISED BY A U.L. LISTED CENTRAL ALARM STATION OR PER UFG., ART.74
7. ALL VALVES CONTROLLING THE WATER SUPPLY FOR AUTOMATIC SPRINKLER SYSTEM AND WATER-FLOW SWITCHES ON ALL SPRINKLER SYSTEMS SHALL BE THE NUMBER OF SPRINKLERS IS 00 OR MORE. CFC SECTION 504.31 AND 1003.31
8. COMPLETE PLANS AND SPECIFICATIONS FOR FIRE ALARM SYSTEMS FIRE-EXTINGUISHING SYSTEMS INCLUDING AUTOMATIC SPRINKLERS AND OTHER FIRE-PROTECTION SYSTEMS SHALL BE SUBMITTED TO FIRE AND LIFE SAFETY FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. CFC SECTION 1003.31
9. SPRINKLER AND SMOKE DETECTOR PLANS MUST BE REVIEWED AND APPROVED BY THE DEPARTMENT PRIOR TO MODIFICATIONS AND REQUIRE A SEPARATE SUBMITTAL AND PERMIT.
10. INSTALLATION OF FIRE ALARM SYSTEMS SHALL BE IN ACCORDANCE WITH CFC SECTION 1007
11. APPOVED AUTOMATIC FIRE EXTINGUISHING SYSTEM SHALL BE PROVED FOR THE PROTECTION OF COMMERCIAL TYPE COOKING EQUIPMENT. SEPARATE COMPLETE PLAN FOR THESE SYSTEMS SHALL BE SUBMITTED TO FIRE PLAN CHECK FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. CFC SECTION 1008.21.
12. STORAGE, DISPENSING OR USE OF ANY FLAMMABLE AND COMBUSTABLE LIQUIDS. FLAMMABLE AND COMPRESSED GASES, AND OTHER HAZARDOUS MATERIALS SHALL COMPLY WITH UNIFORM FIRE CODE REQULATIONS. THE STORAGE AND USE OF HAZARDOUS MATERIALS SHALL BE APPROVED BY THE FIRE AUTHORITY PRIOR TO ANY MATERIALS BEING STORED OR USED ON SITE. A SEPARATE PLAN SUBMITTAL IS REQUIRED PRIOR TO THE STORAGE AND USE OF HAZARDOUS MATERIALS.
13. BUILDINGS NOT APPROVED FOR HIGH-PILED STOCK (MATERIALS IN CLOSELY PACKED PILES OR ON PALLETS, OR IN RACKS WHERE THE TOPOR STORAGE EXCEEDS 12 FEET IN HEIGHT, AND 6 FEET FOR 'A' PLASTICS AND CERTAIN OTHER HIGH-HAZARD COMMODITIONS HIGH PILED STOCK SHALL BE APPROVED BY THE FIRE AUTHORITY PRIOR TO MATERIALS BEING STORED ON SITE. A SEPARATE PLAN SUBMITTAL IS REQUIRED FOR HIGH-PILED STORAGE IN ACCORDANCE WITH THE UNIFORM FIRE CODE, ARTICLE 81.
14. ACCESS GATES SHALL BE IN COMPLIANCE WITH UNIFORM FIRE CODE AND SECTION 902 A SEPARATE PLAN SUBMITTAL AND APPROVAL BY LOCAL FIRE AUTHORITY MAY BY REQUIRED.
15. A LETTER OF INTENDED USE MAY BE REQUIRED BY THE FIRE INSPECTOR.

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PROJECT:
# MAIN STREET PERFORMING ARTS CENTER
103 E MAIN ST.
MUNCIE, INDIANA 47304

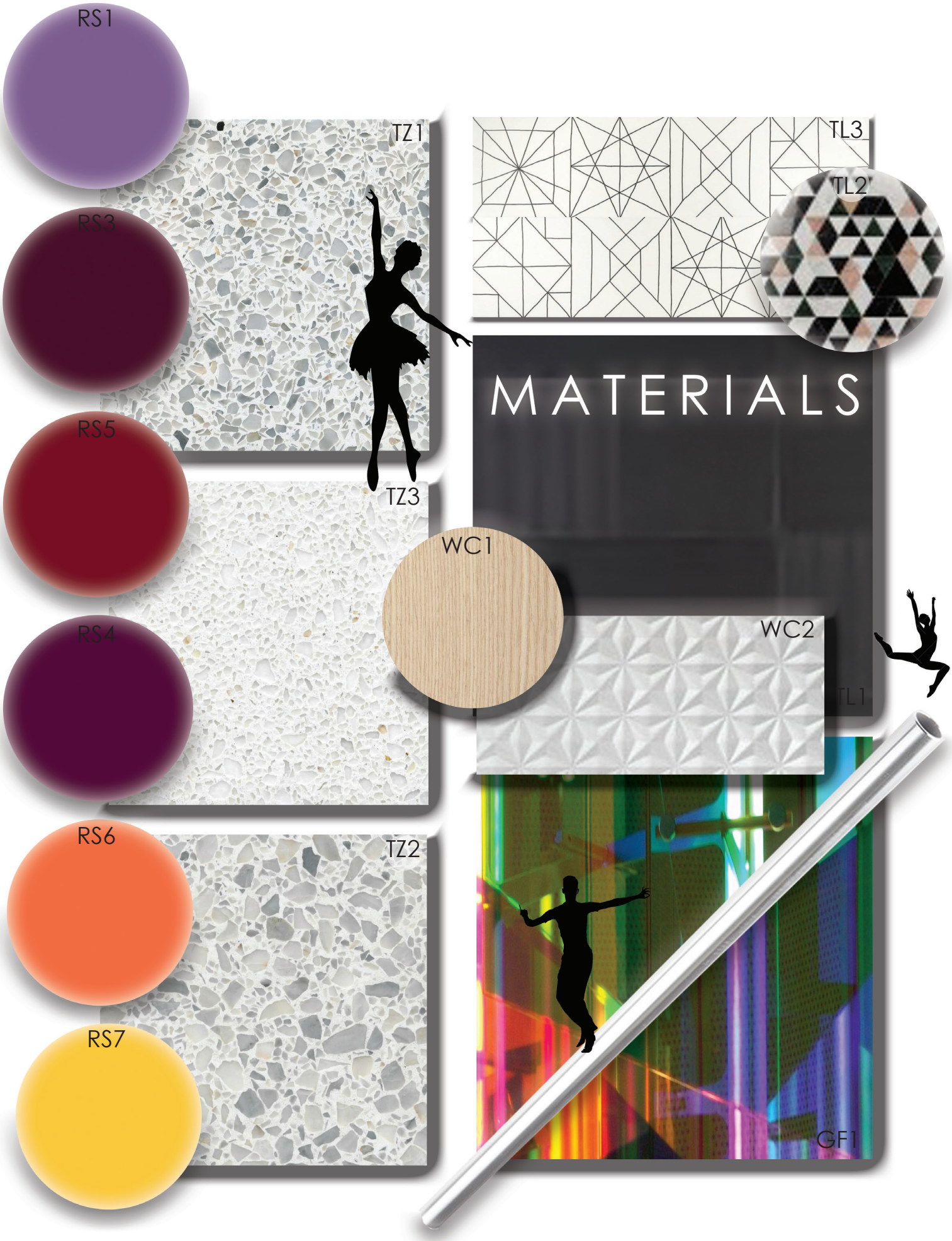
SHEET TITLE:
## FIRE PROTECTION PLAN LEVEL 1

DRAWN BY:
SCHRIPSEMA, EMILY

DATE:
03/25/2020

SHEET NUMBER:
F1.1

Creative Project, Final Design Material Selection


RS1
RS3
RS5
RS4
RS6
RS7
TZ1
TZ3
TZ2
TL3
TL2
MATERIALS
WC1
WC2
TL1
GF1

Creative Project, Final Design Proposed Branding

THEATER AND DANC
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THEATER AND DANCE
THEATER AND DANCE
THEATER AND DANCE

Creative Project, Final Design Poster

# MAIN STREET PERFORMING ARTS CENTER

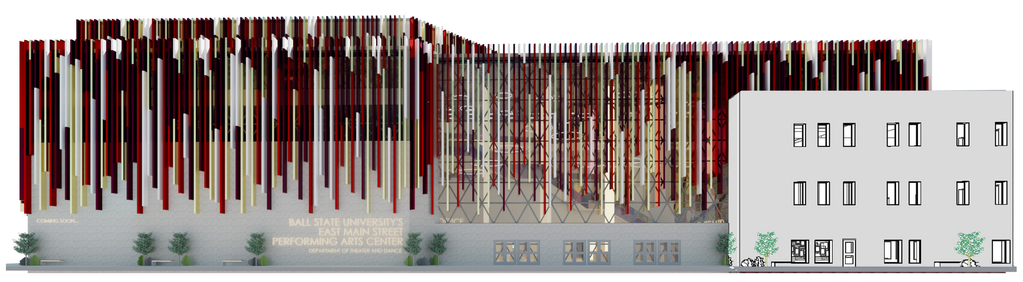
## BALL STATE UNIVERSITY, DEPARTMENT OF THEATER + DANCE

103 E MAIN STREET, MUNCIE IN 47306

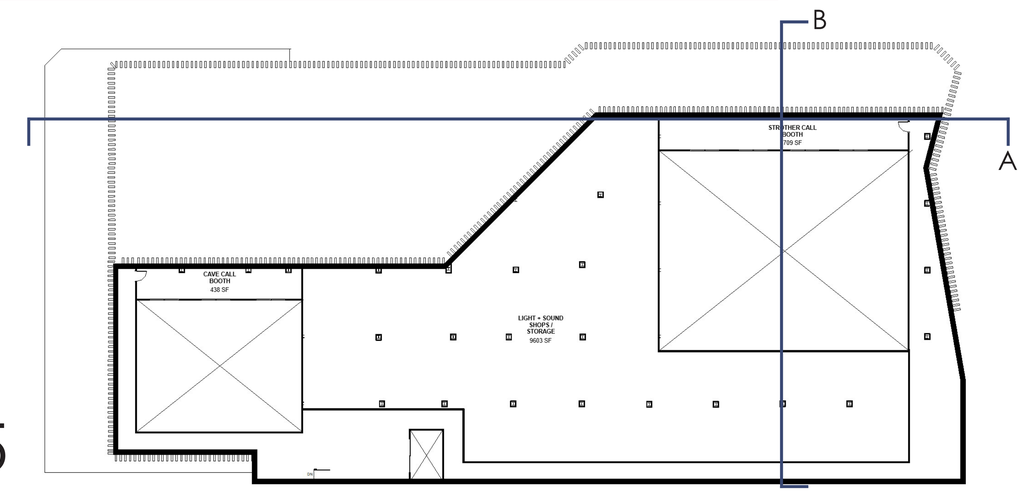
***The Department of Theatre and Dance*** at Ball State University is seeking to expand their current facilities, relocating their performance halls to downtown Muncie. The students feel their ***academics are being compromised due to the current facilities*** restricting the quality of shows and their learning experience. Additionally, ***studio spaces and workshops do not meet accreditation requirements*** per the National Association of Schools of Dance and the National Association of Schools of Theater standards. With this relocation and renovation, the department will gain adequate production spaces that will allow the them to produce shows at any level, without space restrictions or required modifications of the show. The design will focus on ***improving production spaces*** through increased overall square footage for all support areas and ensuring they meet all required guidelines. It will also strive to integrate the surrounding community's culture, the university's brand and the department's character to ***create a unique identity that can be promoted nationwide***. The improved production spaces will **allow the department to run more ambitious shows**, giving the students and community a more diverse selection of shows. Additionally, a better facility will entice the community to attend more shows, increasing the department's revenue and ***fostering a community interest in the performing arts***.

TRANSPORTATION ART + CULTURE FOOD + DRINK

SITE ANALYSIS - 103 E MAIN ST. PATTERSON BLOCK




FRONT FACADE ELEVATION

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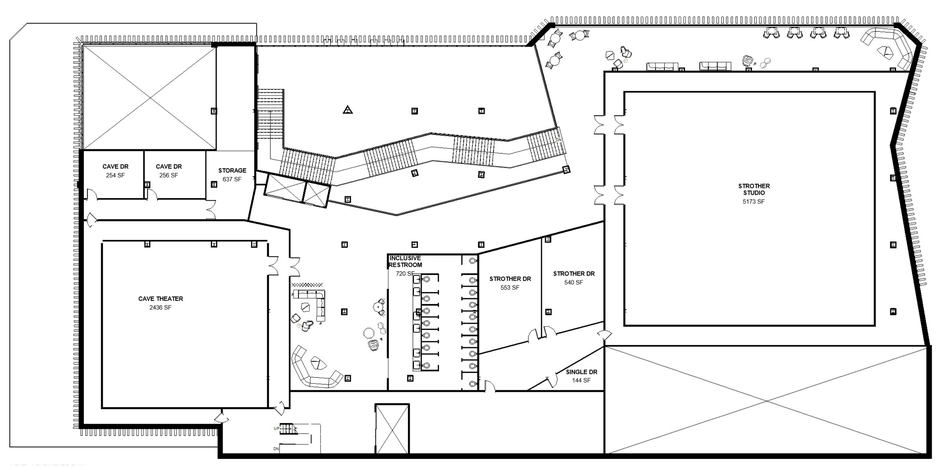


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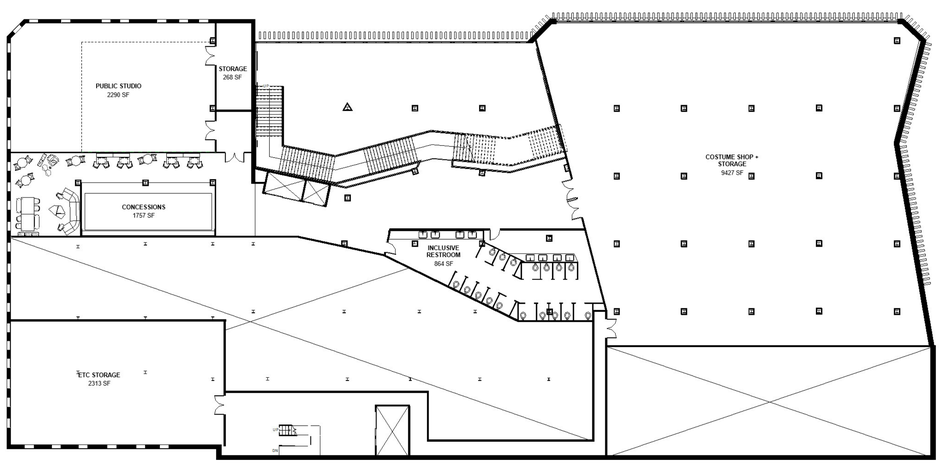


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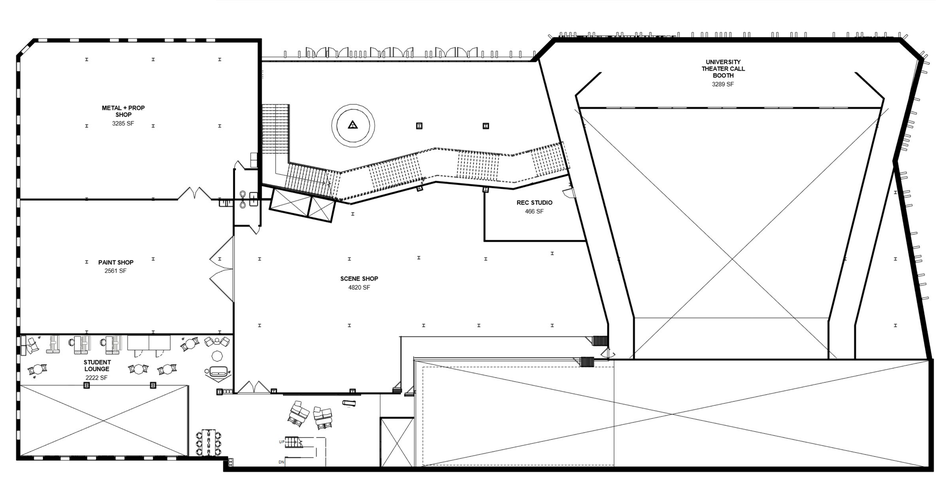


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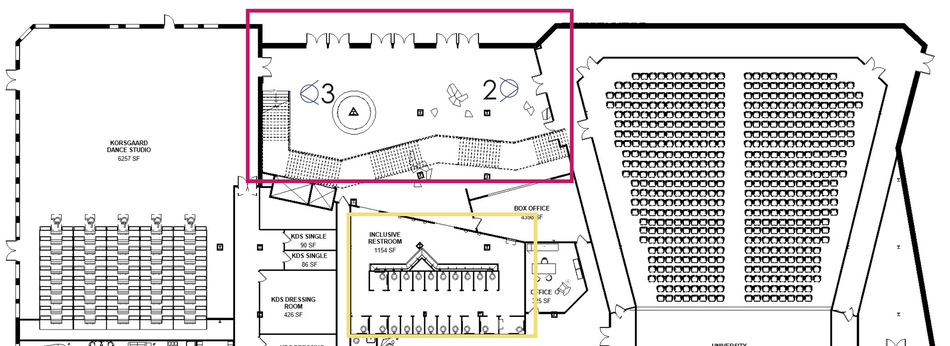


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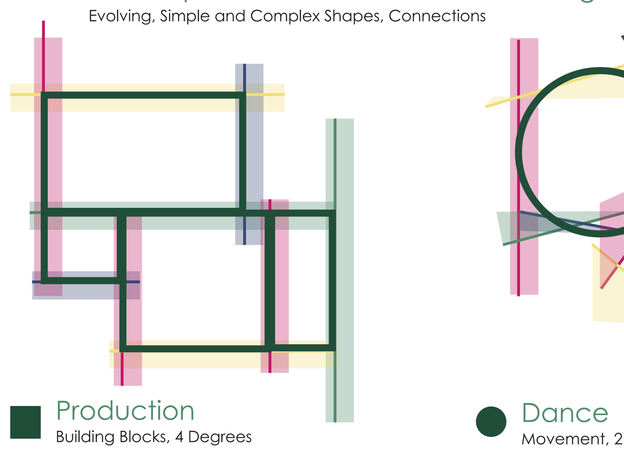
Kaleidoscope

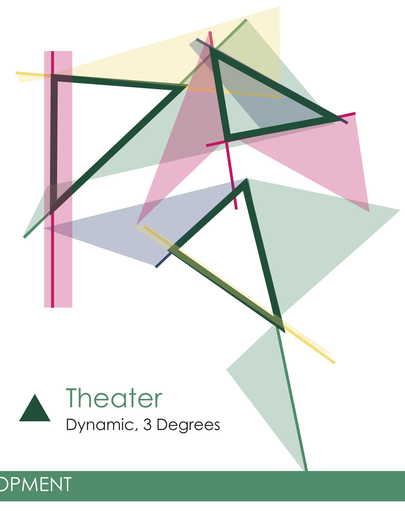
3 Programs - 3 Shapes 9 Degrees Total - 9 Lines

Evolving, Simple and Complex Shapes, Connections



Production
Building Blocks, 4 Degrees

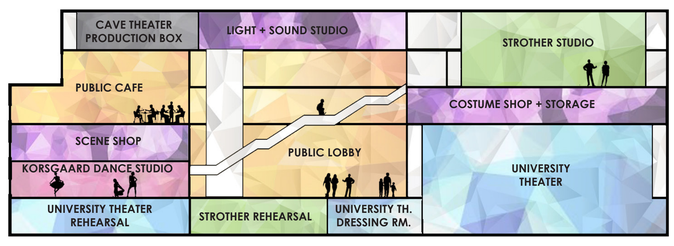
Dance
Movement, 2 Degrees

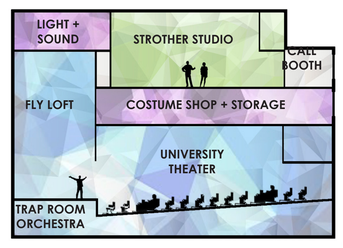


Theater
Dynamic, 3 Degrees

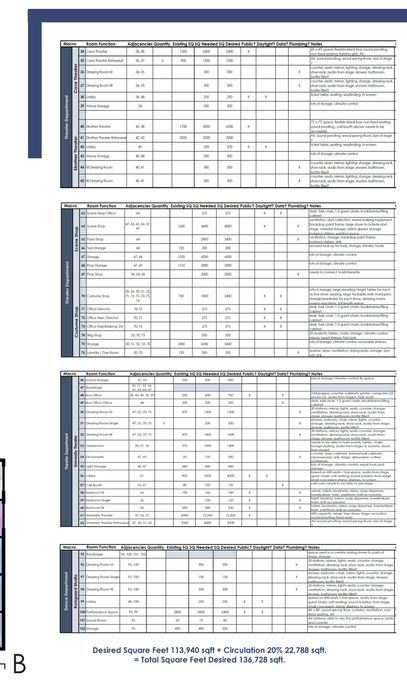
KALEIDOSCOPE CONCEPT DEVELOPMENT

***Kaleidoscope*** is derived from the Ancient Greek work *kalos* "beautiful, beauty", *eidos* "that which is seen, form or shape" and *skopeo* "to look to, to examine". Thus kaleidoscope, ***an observation of beautiful forms***. Kaleidoscope is also believed to symbolize ***the ability to see yourself in the bigger scope of life*** and connect to the meaning of it. ***The same could be said of theater and dance***. Beautiful forms and movement. Complex and simple connections to a bigger picture. The new Department of Theater and Dance Performing Arts Center will draw inspiration from aspects of a kaleidoscope. The ***movement*** and ***always evolving*** qualities of a kaleidoscope will be suggested by designing **rooms that can flex in both size and function**. The ***dynamic*** nature of a kaleidoscope will be represented within the space by ensuring every patron/student/faculty member is ***intrigued and surprised*** by the space. This will be done through the ***careful consideration for sightlines*** and the ***addition of beautiful art pieces*** throughout the site. Aesthetically, ***bright colors, geometric shapes and transparent materials*** will also be used to create an exciting atmosphere The transparent materials will also ***take advantage of natural light*** – light being an integral part of a kaleidoscope – and ***foster a deeper sense of connectivity*** for everyone.



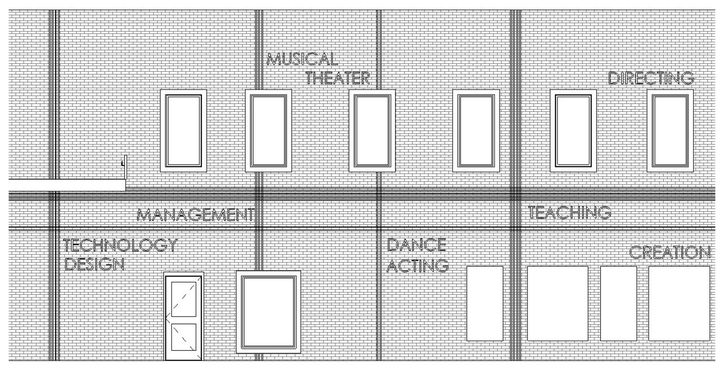

STACKING DIAGRAM



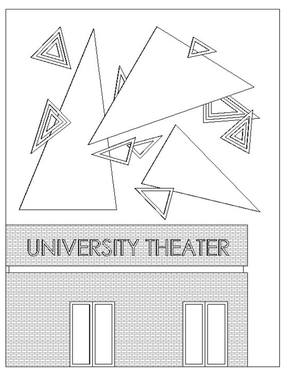
CRITERIA MATRIX

Desired Square Feet 113,940 sqft + Circulation 20% 22,788 sqft.
= Total Square Feet Desired 136,728 sqft.

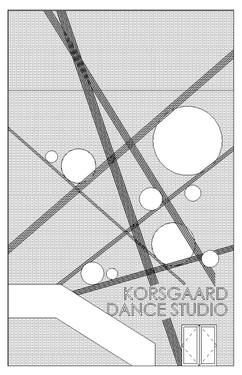
1 STUDENT + FACULTY ENTRANCE FEATURE WALL

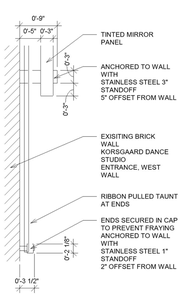


2 UNIVERSITY THEATER FEATURE WALL



3 KORSGAARD DANCE STUDIO FEATURE WALL




RIBBON ANCHOR WALL DETAIL

FEATURE WALL ELEVATIONS + RENDERINGS

ATRIUM MATERIALS

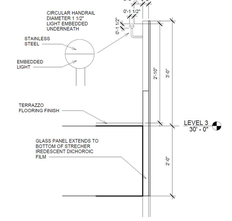
3FORM CHROMA RESIN PANELS - BEET, FIG, IRIS, MERLOT, SHERBET + SQUASH

GEOMETRIX MDF

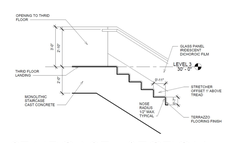
RIFT ASH VENEER

TERRAZZO CO - 1649 + 46

3FORM TETRIA FELT

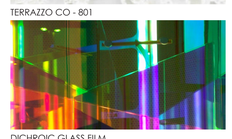



RAILING - SECTION




STAIRCASE - SECTION

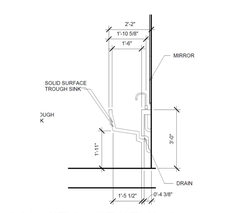
TERRAZZO CO - 801



DICHROIC GLASS FILM

STAIRCASE - MATERIALS

ATRIUM + MAIN STAIRCASE




VANITY - SECTION

RESTROOM - ENTRANCE

PRISM ROSA MARBLE MOSAIC TILE
RENZO GRAFITE MATTE PORCELAIN TILE
DEXTER WHITE MATTE PORCELAIN TILE

RESTROOM - MATERIALS

FIRST LEVEL PUBLIC RESTROOM

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